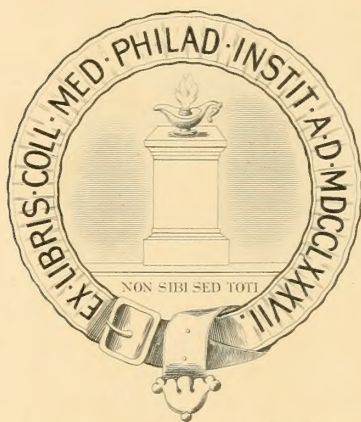




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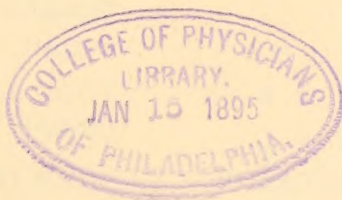
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D. W. YANDELL, M. D., AND H. A. COTTELL, M. D., EDITORS.

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NO. I.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

EXTERNAL URETHROTOMY VERSUS INTERNAL.*

BY W. C. DUGAN, M. D.

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I am convinced that there is not another operation so seriously neglected as that of external urethrotomy, and, too, none so overmagnified as to its difficulties and complications. While I shall discuss it in its general sense, I desire more especially to enter a strong plea for urethrotomy *versus* epicystotomy and retro-catheterization in those cases where it is impossible to introduce a guide.

It is maintained by some that so long as even a drop of urine can be forced out the surgeon should, by patience and perseverance, be able to introduce a small instrument. While this may be true, and I confess it is in most cases, it would be most difficult to convince one that it was practicable when he had stood over a patient with all kinds of instruments at his command, and worked untiringly and without success for two and one half hours, being finally forced to abandon it and to resort to external urethrotomy without a guide. I have had in all some twenty cases, and so I have had an experience in this operation that we are told is so very difficult and tedious, and for that reason feel warranted in giving the conclusion that I have reached concerning the operation, its technique, its indications, its advantages, etc.

After a most careful study of the subject, and a review of my rather large number of cases, I am thoroughly convinced that epicystotomy

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is an operation of itself too important to be considered a step in the performance of urethrotomy in those cases where the passage of the smallest instruments is not found practicable.

We are told that urethrotomy without a guide is a most difficult surgical procedure. Of this I was thoroughly convinced up to a time when I had yet my first operation to perform. I shall never forget with what fear and trembling I approached my first perineum to operate without having been able to introduce a sound, and the pleasant surprise experienced when the urethra was found, opened, and the stricture relieved.

If one is ignorant of a practical knowledge of the anatomy of the perineum, I can conceive of nothing more difficult; but, on the other hand, if one knows the anatomy as it is found on the subject, a knowledge which comes alone by many careful dissections and not book anatomy, I am just as positive that I know of no operation that can be more satisfactorily and scientifically performed. External urethrotomy in cases where a sound can first be introduced, even the smallest filiform, is so very simple that I shall not enter into a description of it. We sometimes, for reasons to be given later, do the external operation even in cases where small sounds or the filiform can be passed into the bladder. In such cases, to facilitate matters, R. Harrison's method of operating is certainly to be commended. That is, to first do the internal urethrotomy by passing the Maisonneuve urethrotome with Gouley's tunneled tip on to the filiform into the bladder, and then cutting; then at once introduce a large sound and place patient in the lithotomy position, and then with a few bold strokes of the knife the urethra may be opened. This method is to be advised for no other reason than that it saves time and is an operation that can be done with the greatest ease; the only maneuver requiring care is getting into the bladder without making a false passage. So my description of external urethrotomy is confined to those cases where we are unable to pass the guide of any kind, or where we endanger our patient's life by prolonged anesthesia in endeavoring to pass a small bougie. Prolonged and thorough examinations of this kind have in my experience proven very unsatisfactory without general anesthesia. While cocaine is an excellent substitute, I regret to say that it is not satisfactory in all cases. I have experienced so little difficulty in doing the operation without a guide that I confess that in most cases I have not persisted, as most surgeons do, in trying to get the sound through the stricture after

making up my mind to do an external operation, but place the patient in position and operate without a guide, rather than worry for an hour or more in getting into the bladder, the main question in my mind being which of the two operations, internal or external, shall we do, rather than with or without the guide.

Before describing the operation it might be well to give my reason for asserting that external urethrotomy should be oftener performed. The normal urethra is a closed canal, the sides being in contact with each other; but such is not the condition of a pathological canal, when the urethra is more or less sacculated, and more or less urine is retained after each micturition.

Now, with a stricture located in the deep urethra, and it is cut from within, there are pockets (numbering according to the number of strictures) in which is retained some urine from one urination to the next, provided this canal is not washed out after each flow of urine.

When we are to understand that all these cases so badly strictured as to render difficult the introduction of instruments have cystitis, and as a result the urine is filled with pus and teeming with pathogenic micro-organisms, we should expect chills, fever, and other systemic disturbances produced by the absorption of this septic material, which finds such a ready entrance through the incised stricture which is rich in lymphatics. The question is, why is it not the rule rather than the exception? Antiseptic surgery has done much to lessen urethral fever, but we still meet with it notwithstanding the strict precautionary measures we throw around all these cases. Only a few days ago I saw some alarming symptoms develop after internal cutting of a deep stricture in a robust young man at the Norton Infirmary. They caused me to have very serious apprehensions for twenty-four hours. But by free irrigation, and keeping the urethra filled with iodoform and glycerine, the symptoms subsided. This case fortunately was one simply of septic intoxication or the so-called sapremia; but still, if he had been neglected, the result would doubtless have been other than what it was. In a few words I might sum up the advantages of external urethrotomy over internal as I conceive them to be, to wit:

1. The drainage is so perfect that no fluid can accumulate in the wound.
2. Cleansing and dressing the parts is satisfactory in all particulars.
3. The patient experiences very much less pain during and after urinating, which I consider very important, since the passing of urine

after internal cutting is so painful that the patient is often made to cry out, and the vesical tenesmus so great as oftentimes to cause quite a free bleeding after each micturition for some days.

4. The certainty of opening the canal against the possibility of making a false passage, as is not infrequently done in our efforts to introduce small instruments.

5. The absence of any risk of patient's bleeding to endanger his life, as the field of operation is unobstructed, and the bleeding points can usually be secured and ligated, or, if the bleeding is capillary, controlled by the application of a compress accurately applied.

In describing the operation I shall in brief detail the various steps, as I have learned to proceed in the cases that have come under my own observation, rather than take up the subject and give the various methods of others, since this paper is simply a review of my own experience rather than an exhaustive discussion of this important subject. The preparation of the patient should be as carefully looked to as for other major operations. We should have at least two or three assistants besides the anesthetist. The patient should be placed in the lithotomy position and drawn quite to the edge of the table. One assistant on each side should hold the legs firmly, and care should be observed to abduct them equally and hold them on the same level. The first assistant now takes hold of the scrotum and lifts it up so it is well out of harm's way. The operator, seated on a stool of proper height and between the patient's thighs, makes his incision through skin and superficial fascia about two inches long, being very careful to conform strictly to the raphe. He should make several free strokes with the knife, and he should avoid making the wound funnel-shaped. No time should be lost in exposing the deep fascia, which is recognized by its being rather thick and glistening, and hardly to be mistaken for any other structure when we remember it is convex from side to side, conforming to the shape of the bulb of the urethra which it covers. If we should be in doubt as to the fascia, it may be incised so as to bring the muscle into view, and its bipinniform appearance, diverging fibers, we can't mistake for any other structure. This muscle and the fascia overlying it are the chief deep guides in performing this operation, for they cover the bulbous urethra.

The knife should here be laid aside, and a pair of forceps and blunt scissors taken and the fascia dissected up carefully next to the perineum and also along the side posteriorly; then a stout, blunt tenac-

ulum is hooked over behind the muscle and fascia, and lifted up and drawn forward toward the scrotum, this being done to avoid cutting the bulb. I am confident that the importance of this part of the operation is not realized. I remember to have cut into the bulb once and had a most copious hemorrhage to ensue, which is always hard to control. But, with the bulb drawn forward out of the way, we come at once down on the last layer of deep fascia. This should be freely incised from before backward to at least three fourths of an inch, and a pair of blunt retractors caught under its free edge and the wound drawn open. When this is done, and the wound cleansed by free irrigation, the membranous urethra is exposed, surrounded by the constrictor urethræ. The urethra should be held firmly with forceps or sharp tenaculum, and its lumen opened by cutting from without in. The urethra having been exposed and opened, the last step, cutting the stricture, is determined by its location. If the stricture be located at the bulbo-membranous junction, we may find the membranous urethra abnormally large, in fact sacculated, which renders easy the last step of the operation. But if the stricture is in the membranous urethra, then it is best to cut down on it from without; whereas, if it is further back, at the prostato-membranous, it is best to open the canal in front and then clear the field of operation thoroughly by free irrigation, and then, with the lips of the wound drawn well apart, we may expect but little trouble in passing a probe through the stricture into the bladder; this to be followed by a larger instrument, and then by the ordinary dressing-forceps passed closed through the stricture, then opened and withdrawn; then, lastly, by the careful introduction of the finger by a rotary or boring motion, we can dilate it up to any size desired. The dilatation should not be confined to the stricture but the prostate as well, as it gives the patient much relief in voiding his urine, nor does it cause incontinence, as is believed and taught by some. If after dilating well it is found to contract immediately, like a rubber band, it should be cut in several places by the careful use of the straight, blunt bistoury until all tendency to so close has been overcome. If the stricture be located at the bulbo-membranous, the urethra should be opened as already described, this time behind the stricture, hemorrhage arrested, lips well drawn apart, and a careful search instituted for the contracted urethra. Here again we rarely have any difficulty in locating the small opening and passing from behind forward the filiform. I think it is preferable to cut the strictures

located here. This may be accomplished by passing the Maisonneuve with Gouley tip down on the filiform either from behind forward or *vice versa*. Having passed the staff through, the stricture should be cut with the smallest knife, the incision preferably made above or in the roof of the canal. Now the Otis should be introduced from the meatus and the stricture dilated up to tension and then cut; then close instrument, push the knife back to the end, and turn urethrotome so as to cut on opposite side. Again dilate up to tension and again cut, and so on, changing instruments so as to cut a little here and a little there, until the desired size is attained, say 35 F. I have found in two cases that even with the filiform passed through from behind it was still impossible to pass the urethrotome on it; so then I have found that tying on to the filiform a very stout piece of cable silk, or preferably a strong flax thread, the filiform may be withdrawn, and along with it the strong silk or flax thread is pulled through and left in the stricture. Now with this thread through the stricture, one end hanging out of the meatus and the other through the perineal opening, we can readily enlarge the canal by grasping the two ends and drawing them rapidly to and fro in a saw-like manner, cutting the stricture by the use of the thread. This has one very decided advantage over all other methods of cutting: there is no bleeding, so we can cut the urethra with the thread up to a size that will admit the introduction of the Otis and complete the operation with that instrument.

If for any reason it is desired to cut with an Otis or Maisonneuve, the stout cord having once been passed through, it should be securely tied on to the end of the urethrotome. Now, by pulling on the cord the instrument is made to pass through the stricture without the remotest possibility of making false passage or otherwise damaging the canal, provided due care be observed in its manipulation. This I have found to work well in the few cases in which I have given it a trial. Of course, this instrument once in, the stricture should be cut as previously described. Hemorrhage having been controlled, the patient should be washed out, wiped off, wrapped in hot blankets, and put to bed; and if there is much shock, I find nothing to act so well as a hypodermic of morphia and atropia. The boric acid and quinine which I generally give for several days prior to operation is continued. Some prefer to introduce a drainage-tube through the perineal wound into the bladder and leave it there for a number of days. This I do not consider necessary, and in fact I am confident that it gives the

patient much unnecessary pain, and can not possibly do him any good, hence it should in my judgment be dispensed with entirely; and, aside from all this, the urine is continually flowing out over every thing and the patient lies in a pool of urine. The wound should be washed frequently. The canal should be irrigated night and morning, and at the same time we should carefully introduce through the perineal wound a small, soft catheter into the bladder, and wash it out with a saturated solution of boric acid, and then a small pad of gauze applied against same and secured by the application of a T bandage. If the patient experiences much burning while micturating, it would be well to apply oil or vaseline just prior to the flow, and it will give much relief. Patient should be kept in bed for one week, then, if he is doing well, permitted to go out for a drive. Bowels should be kept open and the patient encouraged to take largely of liquids. By the end of the week, if patient has had no complications, I introduce the solid sounds. I find that most patients require chloroform for this operation, as I feel that it is important to pass them up to full size. As a rule I order ten grains quinine the night before the introduction of sounds. He is kept in bed two days, washed out as after operation, and if he has no trouble he is then allowed to go out. By this time he voids most of his urine through the natural channel, and has but little pain. Patient is then instructed to introduce the straight, solid sound, size about 20 to 24 F. each night on going to bed, with instructions that he is to see me once each week to have the large sounds introduced. If this is painful cocaine solution may be used, but as a rule it is not called for. This is kept up for one month and the patient is discharged, being instructed to introduce his sounds once or twice each week the rest of his life as a preventive measure.

It was my intention to report several cases in connection with my paper to serve as illustrations, but for fear of appearing tedious I have decided not to draw too heavily on your time.

My paper being simply a plea for external urethrotomy for deep strictures of small caliber, I might briefly sum up the indications for the same. I would say:

1. In all cases where there are false passages it is imperatively demanded.
2. In all cases of close strictures of the deep urethra, where there is cystitis, it is by far the best way to get rid of both strictures and cystitis.

3. Where we have urinary fistulæ resulting from neglected strictures it is the most certain and rapid method of dealing with them.

4. When for any reason it is desired to secure thorough drainage of the bladder.

5. In those chronic cases where you have reason to suspect stone of the bladder, and you desire to chloroform your patient but once and relieve his stricture, explore his bladder, and, if stone is found, to get rid of it all at one seance.

LOUISVILLE.

CHRONIC RETRO-BULBAR NEURITIS.*

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It will be observed that I have changed the title of my paper, that written on the cards sent out by our Secretary being "Tobacco and Alcohol Amblyopia." My apology for so doing is that it gives the article a little wider scope, consequently, I hope, making it of more general interest. The true pathology of this affection was not well understood until the first demonstration in an autopsy by Samelsohn in 1882. Leber, Michel, and others had referred to it before, but had never demonstrated the fact by autopsy. It has been demonstrated that "the marginal fibers of the disc end in its immediate vicinity, and in general the central fibers go to the periphery of the retina, while the peripheral fibers of the disc supply the central part of the retina, the papillo-macular fibers entering the eye as a wedge-shaped cluster on the temporal side of the disc, occupying nearly its inner and lower quadrant." As the title of the paper implies, it is only the fibers of the optic nerve in front of the chiasm that are involved generally.

Causes. The principal cause is alcohol or tobacco alone or combined. Some authors say it is tobacco alone, the alcohol acting only as a depressant. Of 138 cases, 64 were from alcohol, 23 from tobacco, 45 from tobacco and alcohol combined, 3 from diabetes, 1 from lead, and 2 from sulphuret of carbon. Other causes, as cold, especially cold blasts on the face, chloral, stramonium, and syphilis, are given by Swanzy.

Symptoms. The failure of vision is so slow usually that the patient does not discover it until it is well advanced. Only this week a man

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came in with tobacco-alcohol amblyopia whose vision was but one half of perfect. The patient complains of seeing as if he was looking through smoke or a veil. The vision of the two eyes is usually about the same, which is a point in differentiating it from disease of central origin. In the beginning there is no trouble with the field of vision. Later on, however, there will be discovered a central negative scotoma for colors, especially green and red. This scotoma is usually oval in shape, with the long axis horizontal, the retina involved being that portion extending from the temporal edge of the disc to the outer edge of the macula. Later on the perception of white will diminish in this area, and if the disease progresses may be entirely lost. Vision is often reduced to almost nothing in this affection, but total blindness is exceedingly rare. Patients say they see better in a reduced light.

It is not the periodical drunkard who is liable to suffer from this trouble, but the sipper or steady drinker, more often the fellow who never gets drunk. The disease is more common in the male than the female, in the old than the young, for reasons easily understood. Some author has stated that it does not occur in persons under twenty years of age, yet I have a patient now only sixteen years old; cause, the abuse of tobacco and beer.

A peculiarity of the disease is that a person may be nearly blind from tobacco-alcohol amblyopia, who under treatment may recover vision, then return to his old habits, and exceed even the abuse formerly practiced, and yet have no relapse. The ophthalmoscopic symptoms, especially in the early stage of this disease, are usually negative. The optic disc may be a little hyperemic, or present what I used to call a brick-dust color and granular appearance. Later on the temporal half of the disc becomes quite pale.

A point in differential diagnosis I have seen made somewhere, just where I can not now recall, is that by the inhalation of a little amyl nitrite vision is much improved for a while. I tried this last week on a gentleman about sixty years of age whose vision was only $\frac{1}{2}$ of perfect, the result of alcohol and tobacco abuse, especially the latter. I told him to look at the test card, and passed under his nose a glass stopper with a drop or so of the amyl nitrite on it, and he immediately exclaimed with much joy that he could see as well as ever. He demonstrated the fact by reading $\frac{20}{15}$, or more than required in a test for perfect vision. How long this lasted I do not know, as I have not seen him since. Strychnia hypodermatically in a large dose may have the same effect.

The pathological changes as given by Samelsohn and others in the optic nerve consist in an interstitial neuritis at its axis, commencing outside of the chiasm, preferably this portion of the nerve, and leading to proliferation of connective tissue, and to secondary atrophy of a certain bundle of nerve fibers. The changes are analogous to those which take place in the liver and brain as the result of chronic alcoholism.

Treatment. The first indication is of course to correct the cause. Promises to do so are easily gotten and as easily broken. A majority of the cases, if not too far progressed, will recover with no other treatment than the correction of the cause. Again, others will need the leech, Turkish bath, and strychnia; the latter preferably hypodermatically. I usually order strychnia nitrate, gr. iv; aqua, 3j. Each drop contains gr. $\frac{1}{120}$ of the strychnia. I commence at gtts. ij, and increase one drop per day until the physiological effect is reached, which may be anywhere from gtts. xv to gtts. xl. Pot. iod. is indicated also, or I often give zinc phosphide and strychnia in pill.

LOUISVILLE.

Reports of Societies.

LOUISVILLE CLINICAL SOCIETY.*

Stated Meeting, November 7, 1893, Dr. I. N. Bloom, President, in the chair.

Dr. I. N. Bloom (Alopecia Areata): No. 1. This patient, a young man about twenty years of age, as you will see, is suffering from alopecia areata. The feature of greatest interest in the case is the extent of the disease. I think it is safe to say that at least one half of the hair is gone. He is a young man of exemplary habits, no suspicion even of specific trouble. He has been under my treatment for only a short time, but there is already considerable improvement. I believe in about four to eight weeks the hair will cease to fall out and the new pigmented hairs will appear. Lanugo hairs can be seen in spots, and here and there on the older patches pigmented hairs show up.

I have a lady under treatment at the present time in whom the disease is about one half as great in extent as in the case before us.

*Stenographically reported by C. C. Mapes.

No. 2. (Extensive Case of Psoriasis.) This is a plain case of psoriasis, the most extensive I think that I have ever seen in private practice. The surface of the entire body is affected, the spots varying from the smallest patch to the size of your two palms. It is because of the unusual extent rather than the unusual disease that I exhibit the patient. He has been under my treatment about a week, and this is the second attack in which I have seen him. The first attack was about two years ago. The treatment has been simply tar; I have also given him iodide of potassium, following out the line of treatment of Chopp and Kotzen, who claim to have gotten good results from large doses of iodide of potassium in these cases. He takes thirty-five drops, containing thirty grains of iodide, at a dose three times daily. As a local application I have used ten to twenty per cent ointment of oleum rusci. Arsenic is recommended, but this is the slowest method of treatment; it would require about twenty weeks in a case like this. Under iodide of potassium and tar I believe a cure can be effected in six to ten weeks. The extent of surface affected in this case makes me chary of using chrysarobin. Investigations embracing several hundred cases prove that iodide of potassium has absolutely no ill effect on the blood; that it does not increase or diminish the red blood corpuscles. In this connection I wish to say that I have administered in a case of brain syphilis what I believe to be the largest dose of iodide of potassium ever given in Louisville—540 grains daily. All symptoms disappeared in six weeks.

DISCUSSION.

Dr. A. M. Vance: I remember a case of alopecia I saw when a student where there was absolutely no hair upon the head. It was in the clinic of Dr. Lunsford P. Yandell at the University. The patient was a boy, ten years of age, whose head was as clean as a billiard ball, except the very fine hair that Dr. Bloom speaks of, which could be seen only on the closest inspection. I remember the treatment, particularly how successful it was. At each sitting an area of probably about two inches square was painted with pure carbolic acid, and before over one half of the extent of the scalp had been gone over the hair began to grow upon the portion that had been first painted. The ultimate result in this case was perfect. The effect when the hair commenced to grow was very noticeable, as it was black. I have seen several other cases, in none of which, however, was the treatment as successful as in the one referred to.

Dr. W. O. Roberts: The case of alopecia shown by Dr. Bloom recalls one which a number of the members of this Society have seen. His scalp looks very much like the case before us. The patient has been under the care of many doctors, myself included, and among other things used in the case has been carbolic acid, but I could see no benefit from any thing that was done for him. I lost sight of the patient for a number of years, and a few days ago met him on the street; his head looks now about the same as it did the last time I saw him.

The other case shown by Dr. Bloom is of great interest to me; it is the most beautifully marked case that I ever saw. The patient has post-cervical enlargements, and this leads me to ask Dr. Bloom if he has ever had syphilis.

Dr. Vance: The so-called psoriasis due to syphilis is not often as extensive as this. I would like to ask Dr. Bloom if he simply takes the history of the case, or are there other ways of differentiation.

Dr. Bloom: You do not need any history at all in these cases. As this patient appears to-night it is scarcely a fair case. He has been under treatment for a week and the appearances of the spots have changed very materially. Had you seen the patient a week ago, when he applied to me for treatment, with the characteristic silvery scales all over his body, you would have made diagnosis of psoriasis without any possible difficulty. As I have already stated, two years ago I cured this patient of a similar attack of psoriasis; at that time the spots were only about one fifth as abundant as now, varying in size from your thumb nail to a silver dollar. There is no syphilitic psoriasis that resembles any other psoriasis, except the so-called psoriasis palmaris syphilitica. In making the diagnosis between the three palm diseases, syphilis, psoriasis, and eczema, it is sometimes very difficult, and you may have to take the history into consideration. But, generally speaking, a close examination of the eruption on the body generally will suffice. In the previous attack which the patient had he was treated locally with chrysarobin, and the effect was all that could be desired. At that time he received nothing internally.

Dr. T. P. Satterwhite: Is there any eruption on the hands of the patient?

Dr. Bloom: No; nor is there any on his feet.

Dr. Satterwhite: Is it not a fact that attacks of this character are almost always considered the result of syphilitic involvement?

Dr. Bloom: No, sir; never.

Dr. Satterwhite: Is there any connection between this trouble and gout?

Dr. Bloom: No, sir.

Dr. Vance: What is the supposed etiology?

Dr. Bloom: It is not known. All we know about it is that in the vast majority of cases it occurs before or about the time of puberty; that at times heredity seems to play a part. I am accustomed to say to my patients that I can cure them of the eruption in from four to eight weeks, depending upon the extent of the disease; but it may return in six weeks, six months, or six years, or never. I have patients who have not had a return of the trouble for thirteen years; in others it has returned in a year; in some in six months; in the case reported it has been two years; I prepared him for this, however. My prognosis is very conservative in all such cases. It is a very common disease, but is rarely found as wide in extent as this case shows.

Dr. Roberts (Malignant Disease of the Rectum): I had a patient to come here to-night with a view of showing him before the Society, but the gentleman whom I wished especially to see the case is not present, therefore I will not introduce the patient. I believe it to be a case of malignant disease of the rectum. I wanted to show it because of the fact that it is the third case that has come under my observation in which the disease is not advanced too far for operative interference. All the other cases which have come under my observation have gone too far for any operation to be considered. The rule is, if the cancerous growth extends higher up than you can reach with the finger, it is beyond all operation looking toward a cure of the disease. This trouble is located in the lower end of the rectum, and confined to the posterior wall; an ulcerated surface which does not seem to cover a space larger than a nickel. Above and to either side of the ulcerated surface two nodules can be plainly felt. The man complains of pain in defecation and for a short time afterward, and passes mucus, pus, and blood, as he describes it, with each stool. I saw him for the first time to-day; I feel satisfied that it is an epithelioma, and a very favorable one for removal. Statistics show that cases operated upon where the disease has not extended too high in the rectum are about as favorable as in any other portion of the body.

I recall to mind now a case of cancer of the rectum in a lady whom I saw soon after the trouble began; this is one of the cases wherein I

thought operation would be followed by good results. Dr. Mathews also saw the case in consultation, and concurred in my diagnosis. This patient was operated upon in St. Louis some ten years ago, and she seems to be in perfect health now.

Dr. L. S. McMurtry: I have here a group of specimens which I have selected from a series of abdominal sections done within the last few weeks which may be of interest:

No. 1. (Hydrosalpinx.) This is a tumor of the broad ligament, an accumulation of serum in the fallopian tube. It was very difficult to remove without rupture on account of adhesions. The fallopian tube, you will see, is distended with serum, and the ovary is in the broad ligament and not incorporated with the cyst. The fimbriated extremity of the tube, you will observe, is sealed upon one end of the cyst, and the other end is included in the ligature placed there. It is a hydrosalpinx. The specimen is interesting in its relation to sterility.

No. 2. (Tubo-ovarian Disease of Long Standing.) Here are two specimens from the same patient of tubo-ovarian disease of long standing. The patient had suffered repeated attacks of peritonitis, and had been an invalid for several years. The ovary and fallopian tube are so amalgamated as to appear as one mass. On cutting into this mass, after removal, a cavity containing a dark, soft material is found, which would doubtless have advanced to abscess.

No. 3. (Cystic Ovary.) This is another specimen of tubo-ovarian disease. The operation was done yesterday morning, and the specimen is quite fresh. It is a case of cystic ovary with adhesions and involvement of the adjacent fallopian tube. The disease was bilateral, and illustrates a very severe lesion, which is comparatively rare in pelvic inflammatory disease. The cyst contained a dirty, bloody fluid, consisting of decomposed blood and serum. These blood cysts are among the most dangerous of this class of tumors, and are associated with extensive inflammatory lesions. The adhesions were universal.

No. 4. (Suppurating Dermoid Cyst of Ovary with Twisted Pedicle.) This specimen is a very typical illustration of dermoid cyst of the ovary. For some time preceding the operation the patient suffered intensely with active inflammatory symptoms, and as you will see the cyst was suppurating. You will observe that the pedicle was twice twisted and is very small. The tumor was very generally attached by adhesions to the intestine and parietal peritoneum. On opening the tumor it is found

to contain sebaceous matter, hair, and other material characteristic of these tumors. The surface of the sac is very dark, the result of low vitality from interference with the circulation through the pedicle in consequence of the twisting. These tumors require the utmost care in their removal, as the foul contents of the tumor must be carefully prevented from obtaining contact with the peritoneum.

No. 5. (Fibroid Tumor of the Uterus.) This is a specimen of fibroid tumor of the uterus. I have had the patient under observation at times for several years. Four years ago it was very small and was producing considerable hemorrhage. At that time I opened the abdomen and removed the uterine appendages, hoping to obtain the same good result from this operation that I have witnessed in a large number of similar cases. The patient was much improved for a time, but the tumor steadily grew and inflicted upon her much pain and distress. She was a frail woman, and in consequence of pain and hemorrhage her health was much impaired. Nervous and other complications came on in time, and she was sent from home by her family physician for general treatment, with the hope of improving her general health and relieving the nervous disturbances which were of most serious character. I had not seen the patient to examine her for over two years, when I was asked to see her two weeks ago, and found the tumor to have reached these extensive proportions. Her physician had for some time advocated an operation for entire removal of the growth, and the patient was anxious for any thing which promised relief. Her health had failed rapidly of late months, and her sufferings were intense. Several severe attacks of peritonitis during the past year had added to her distress. Her complexion was very bad, her general nutrition impaired, and her sufferings had made her dependent upon daily doses of morphia. The operation was the most difficult of the kind that I have ever undertaken. The tumor was firmly packed and fixed by organized adhesions to every portion of the pelvis. I had literally to dissect it out. The bladder was dissected off of the tumor in front, the rectum was released behind; the utmost care was required to protect the ureters, and the difficulties were increased by a cystic degeneration and suppuration of one portion of the tumor. The operation was completed very satisfactorily at last, and the patient was put to bed in very fair condition, considering her extremely feeble state. On examining the specimen the suppurating portion will be observed. Members of the Society will recall a number of large tumors of this kind that I have presented here from

time to time, several of them much larger than this one, but in comparison their removal was easy. The patient never fully reacted from the operation and succumbed two days later.

In all the other cases here illustrated recovery was easy and prompt. Indeed, in no one of them did any untoward symptom whatever arise.

DISCUSSION.

Dr. W. H. Wathen: I wish to say a word concerning two of the specimens exhibited by Dr. McMurtry. The specimen exhibited as a hydrosalpinx is a typical small parovarian cyst. The tube is pervious and healthy, and the cyst is below it.

The dermoid cyst is a pretty specimen of one of the varieties of dermoid conditions that are often met with in practice. No one can tell positively that a tumor is dermoid until it is removed and the specimen examined. I have removed dermoid tumors looking exactly like an ordinary ovarian cystoma, but upon critical examination discovered only a bunch of hair to demonstrate the dermoid origin. Again, I have removed them where there was little or no fluid, but they were filled with all the characteristics of dermoid growth—bone, teeth, hair, integument, etc.

Dr. Roberts: In regard to the hydrosalpinx: Several weeks ago I operated upon a young girl, fifteen years of age, for radical cure of an irreducible inguinal hernia, left side. Upon opening the sac I found the ovary with a hydrosalpinx. As the ovary was found to be in an unhealthy condition, I removed it, together with the tube. The tumor had existed ever since the patient was quite a young child, and she wore a truss, strange to say, but always had to take the truss off during menstruation, and her sufferings were so intense during that time that she had to go to bed for at least two days. She has menstruated once since the operation, with scarcely no pain at all, and her recovery has been uneventful.

Dr. Satterwhite: With reference to the fibroid tumor, I want to report one case showing the tenacity of life and one of the complications of operations for the removal of growths of this character. Some years ago I assisted Dr. McCoy, of Jeffersonville, Indiana, in removing some fibroids from the uterus of a patient; the largest one was about the size of an orange, with three or four smaller ones. I was asked to see the patient again in the course of a month, and the abdomen was enormously distended, inflammation had set up; upon reopening the abdo-

men we drew off, it seemed to me, a gallon of pus; the abdomen was divided by adhesions, and the pus had accumulated above. Notwithstanding this the patient lived over a month and then died. I do not remember how many days she lived after the inflammation and formation of pus. The operation was laparotomy.

The essay was read by Dr. Wm. Cheatham; subject, Chronic Retro-Bulbar Neuritis. [See page 8.]

DISCUSSION.

Dr. T. C. Evans: Tobacco and alcoholic amblyopia afford a striking instance in which the clinician anticipates the work of the pathologist. Von Graffe, in 1866, and Leber, in 1869, called attention to the pallor of the temporal half of the optic disc; this, in conjunction with the central scotoma, led them to conjecture that the amblyopia was the result of a retro-bulbar neuritis. This opinion was confirmed pathologically by Samelsohn and others in 1880 and 1882. They found the pathological condition to be an interstitial sclerosing inflammation—in many respects similar to hepatic cirrhosis. The process involves the papillo-macular group of fibers, and may occur at any point from the nerve head to the chiasm. A few years ago Dr. Uthoff, of Berlin, examined ophthalmoscopically one thousand inebriates in the various asylums; he found the white sector of the disc in fourteen per cent of the cases, a much larger proportion than had hitherto been supposed. I think it not unlikely that similar sclerosis occurs in other parts of the nervous system. Most of the cases occur in those addicted to both alcohol and tobacco. In those using only tobacco, the smokers are the ones usually affected.

A case recently came under my observation wherein the man did not smoke and did not chew excessively, yet he seemed to have a typical case of tobacco amblyopia. His vision when he came to me was reduced to 20cc. I advised him to leave off tobacco entirely, and put him on strychnia and phosphorus; in a few months his vision came up to 20xx.

Dr. Vance (Displacement of Semi-Lunar Cartilage by Injury; Removal; Recovery): A young man, a footballist, consulted me some time ago with the history that about a year ago while playing football and making a "stand," I believe they call it, sustained an injury to his knee, "put his knee out of joint," as he called it. He said that it was pulled

back and he went on with the game. A number of times he had the same accident, and every time applied the same remedy. Three or four months before he consulted me he began to suffer with pain of a boring character over the head of the fibula, with tumefaction. A week after I first saw him the pain and swelling had increased, and I then thought I could detect an abscess of the cold variety, and incised it. I found the contents to be not only fluid, but considerable caseous material also came out. The cavity of the abscess was thoroughly irrigated, but the pain continued, and there was not the improvement I had hoped for. I then increased the size of the incision and removed what I took to be a floating cartilage from the knee-joint. Entire recovery soon took place. I feel sure that the body removed was the semi-lunar cartilage, which had gotten away from the joint and caused the abscess.

Dr. Roberts (Displacement of Semi-Lunar Cartilage by Injury; Replacement by Pressure): Several weeks ago I saw a young man who had his knee injured in a game of football. He claimed that a man in the process of the game had struck him on the inner side of leg between the knee and the ankle, and at the same time another one hit him on the outer side of the thigh, twisting his leg out at the knee-joint. He says it was replaced, and he was taken home; while on the way there it was again knocked out and again replaced. I saw him twenty-four hours after receipt of the injury, and the knee was enormously swollen, but as well as I could make out the bones seemed to be in perfect position. The leg was put up in plaster dressing, which was not disturbed for ten days. When the plaster was removed the swelling had disappeared, and on the outer side of the joint there was quite a protuberance, which I thought at first was the result of lateral displacement of the knee, but upon careful examination and measurement became satisfied that it was not, but that it was one of the semi-lunar cartilages displaced. Under chloroform, by extension of the leg and pressure upon the protruded cartilage, much to my surprise it slipped in. I feel satisfied in this case that it was one of the semi-lunar cartilages. The plaster dressing is still on, and I am a little inclined to believe there will possibly be a recurrence of the trouble upon the slightest twisting of the knee. The case reported by Dr. Vance is exceedingly interesting to me, and I believe that it is one of the same character.

Dr. Bloom (Iodide Potassium in Cerebral Syphilis): I had supposed that a few minutes ago, in speaking of the use of iodide of potassium in

cerebral syphilis, I had given the largest dose ever administered in Louisville—540 grains per day. It seems that Dr. Roberts has given a larger amount, and I would like to have him tell us something about the case.

Dr. Roberts: The case has already been reported. It was a case of brain syphilis which I saw with Dr. Bodine. Iodide of potassium was administered in gradually increasing doses until the patient received one half ounce three times per day, a total of 720 grains daily.

T. C. EVANS, M. D., *Secretary.*

THE LOUISVILLE SURGICAL SOCIETY.*

Stated Meeting, Nov. 13, 1893, Dr. Geo. W. Griffiths, President pro tem., in the chair.

Dr. A. M. Vance (Appendicitis; Operation; Recovery): This patient is Mr. B., upon whom I operated for appendicitis about five weeks ago, the first symptoms of the trouble having appeared six days previously. The patient was taken to the Norton Infirmary early in the morning the day after the last meeting of this Society, and I opened an appendicular abscess, removing a necrotic, perforated appendix with a great many enteroliths, about a quart of very fetid pus and this piece of very much thickened and diseased omentum. He has made an uninterrupted recovery. I bring him here to emphasize the importance of the after-treatment of surgical wounds for appendicitis. This importance consists in the fact that the incision being made out of the median line, it is natural to suppose that a weak point will be established unless the abdomen is well supported for a long time.

DISCUSSION.

Dr. Jas. S. Chenoweth: How long was the patient sick?

Dr. Vance: The operation was done six days after the first appearance of distressing symptoms. He was taken sick suddenly with great pain in the abdomen, and was treated for typhoid fever until I saw him.

Dr. H. H. Grant: What was the condition of the patient at the time of the operation?

Dr. Vance: He had a pulse of 120 to the minute and a temperature of 101° F. The temperature did not go above 101° F. after I saw the patient. There was a large induration in the appendicular region and every evidence of fluctuation.

* Stenographically reported by C. C. Mapes.

Dr. W. L. Rodman (Epithelioma of the Ear; Operation): This specimen is a portion of the external ear removed to-day. From the history of the case it is almost certainly an epithelioma. It was found on the upper portion of the ear of a man fifty-three years of age; it had been severely painful for two years; it had been removed a short time since by a physician, but had recurred. A distinct nodule, very painful, could be felt. Believing it to be an epithelioma, I thought it prudent to remove the growth by free incision. I have not had the specimen examined microscopically, but think there is little doubt about the diagnosis. Epitheliomata in this situation are very uncommon. This is the second case I have ever seen. A peculiar feature about these cases is that they occur eight or ten times more frequently in men than in women. It is possible that this growth may have started as eczema, since epitheliomata often follow this affection. I will have the specimen examined microscopically and make further report.

DISCUSSION.

Dr. Vance: I would like to ask Dr. Rodman why he did not use the caustic treatment in this case?

Dr. Rodman: Why I am unable to say, but it is a fact that caustics do not have the same effect when applied to the ear as they do when applied to the face; it may be owing to a difference in the tissues. Butlin, who is very partial to the use of caustics for the removal of epitheliomatous growths about the face, does not advise their use in epithelioma of the ear, and says that the knife gives very much better results than caustics, owing probably to a difference in the tissues. For these reasons I used the knife.

Dr. I. N. Bloom: Did you not remove an unusually large portion of tissue?

Dr. Rodman: I do not think too much tissue was removed in view of the fact that the growth had recurred so speedily before. The patient said, if there was a possibility of the trouble being cancerous, he would rather that his entire ear be sacrificed than to take any chances. You will notice that the piece removed is V-shaped, the edges were carefully approximated, and I think the deformity will be comparatively slight. I do not think you can remove too much tissue in operating for malignant disease.

Dr. W. C. Dugan: If Dr. Rodman had made the V-shaped piece longer, letting it run down to a point near the cartilaginous portion of

the ear, the resulting deformity would have been much less. By this method of incision the two triangular edges can be brought together carefully, and the deformity is almost nothing.

I was not aware that epithelioma of the ear was so rare as Dr. Rodman has reported. I operated upon a case occurring in a man seventy-five years of age, at the Sts. Mary and Elizabeth's Hospital some time ago, wherein the disease had extended so low down and so much tissue had to be removed that the edges could not be approximated, and the wound was left to heal by granulation. The wound did very nicely, but in two or three weeks there developed a slight enlargement of the gland immediately in front of the ear. At first I was persuaded that there was no cancerous deposit there, but it went on very rapidly, and in a short time a large cancerous growth had developed just in front of the ear, from which the patient died. I am inclined to believe that the trouble involved the meninges and perhaps the brain, the man dying as a result. I report this case as illustrating another risk or another feature of malignant disease situated on the ear.

Dr. Vance (Lipoma; Operation): This specimen is an ordinary lipoma; the most interesting feature connected with it being its enormous size. It was removed from the thigh of a woman fifty years of age, the tumor having been twenty years in its development. Another interesting thing to me was, heretofore, whenever I have removed a lipoma of any size, I have always found a considerable blood supply. This operation was almost without hemorrhage, and the tumor does not appear to have had any blood supply. The patient has made a rapid and complete recovery.

DISCUSSION.

Dr. Rodman: Dr. Chenoweth will recall a case we operated upon at the University Clinic some time ago, removing a large lipoma, looking very much like this, except that it was slit as it were in the middle and looked something like the brain. It was in the same situation as the one removed by Dr. Vance. The patient was a negro man, and the tumor had been growing for forty years, calcareous degeneration having taken place at one or two points. The thigh is one of the favorite regions for fatty tumors.

Dr. Chenoweth (Semi-Lunar Cartilage from Knee-Joint): I have here a small specimen which is of some interest; it is a semi-lunar car-

tilage from the knee-joint, removed several months ago. The patient, a young man, a fireman, was on a ladder with his leg lapped over a round, when by some means it was pushed forward in such manner as to throw this cartilage out of place. It was pushed far out, being left attached by a small corner in front. He did not fall, but kept at work at the fire, and later jumped out of a second-story window and walked across the street. I saw him a few minutes afterward, and could feel the cartilage very distinctly just at the inner margin of the patella, attached at the anterior margin. Four days afterward I opened the joint, removed the cartilage, and closed the wound, which healed without trouble. The man has a perfect leg. I read a few days ago of a case reported by Borck, wherein the same cartilage had been dislocated in a man who fell backward from his horse. The cartilage was removed and the man made a perfect recovery.

DISCUSSION.

Dr. Rodman: I would like to inquire if any one has ever seen a case of suppuration of the joint follow after removal of one of these cartilages?

Dr. Vance: I have removed the semi-lunar cartilage a number of times and never saw any trouble follow the operation. I reported before one of the medical societies some time ago, in the person of a young man, a footballist who had sustained an injury to the knee on several occasions; as he expressed himself, his "knee was knocked out of joint" several times and replaced by extension and pressure. Finally a tumor appeared on the outer side of the joint near the head of the fibula; pain was quite severe for several months before I was consulted. A week before I saw him the pain and swelling had increased, and I concluded that suppuration had taken place and at once incised the tumor, removing considerable caseous material. Suppuration did not cease very quickly, and I then enlarged the incision and took out what I suppose was the semi-lunar cartilage. Complete recovery soon took place. This is the only case of the kind in which I have seen suppuration; however, the suppuration occurred before any operation had been performed.

The essay was read by Dr. W. C. Dugan; subject, External Urethrotomy *versus* Internal. [See page 1.]

DISCUSSION.

Dr. Bloom: There is so much logic in Dr. Dugan's reason for doing an external urethrotomy for deep strictures of small caliber that I do not think there can be much dispute about it. The dangers of serious hemorrhage and sepsis are certainly very much minimized by the external method.

As to Dr. Dugan's method of operating, it is certainly very ingenious and one that I shall keep in mind. There is one point upon which I desire to ask for information: When the incision is made and the stricture is found anterior to the bulbo-membranous portion of the canal and the patient has complete command of his urine, I think it would be good practice to draw off his urine at stated intervals, say every few hours, with a catheter, to be continued for several days. I would like to ask the gentleman whether this would not be a good method, preventing wetting the wound with urine and relieving the pain? Where the stricture is located in the prostatico-membranous portion of the canal, where it is necessary to practice dilatation of the prostatic urethra, I should think that the external sphincter muscle would be in the same condition of dilatation and complete incontinence of urine result.

Dr. Rodman: I am fully persuaded that internal urethrotomy has in the past ten or fifteen years been overdone, and sufficient attention has not been given to external urethrotomy. I am satisfied, in the character of cases referred to by Dr. Dugan, that the external promises more than the internal method. I have never been a very pronounced advocate of internal urethrotomy; I have seen some very unfavorable results from it, and have always been rather partial to external urethrotomy in certain cases.

It has not been my experience to find as many close strictures as indicated by the essayist. I have only seen one stricture that could not be passed with an instrument, that was in a negro man that I saw with Dr. W. O. Roberts six or seven years ago. Even after putting the man under the influence of chloroform each of us tried a number of times, and we utterly failed to get any kind of an instrument into the bladder. I think usually a small filiform can be gotten into the bladder, and I am a great believer in gradual dilatation, even in many cases of perineal fistulæ.

Dr. Grant: In the character of cases referred to by Dr. Dugan it always seemed to me it would be well to do an external urethrotomy

with view of getting drainage. I can hardly feel as if I am disposed to approve his statements concerning the simplicity, safety, and facility with which the operation can be done. In the two times that I have done an external urethrotomy without a guide, I have found it not a very easy operation. In neither one of these cases, moreover, did the stricture involve the prostatic portion of the urethra behind the bulb; they were strictures of the membranous portion, as the majority of them are. The facility of getting into the bladder by any kind of a filiform bougie is not at all what we would be led to suppose from reading in books, but it has been my experience to eventually get into the bladder if time is allowed; and while I agree with Drs. Dugan and Rodman that cases will arise in which it is impossible to get into the bladder in the course of two or three hours, or at one sitting; it has never been my experience to fail to enter the bladder where time is allowed and where due perseverance is observed. Of course I have encountered many cases where at first it was impossible to enter the bladder with even the smallest filiform bougie, but in these cases I pass as large a bougie as I can as far as it will go, the patient is then put to bed and kept as quiet as possible, and in the course of ten or twenty-four hours I endeavor to pass a larger instrument or to pass the same instrument a little farther into the bladder, and in all cases I have succeeded in doing so. The advantage of getting an instrument into the bladder and securing a guide is exceedingly great. It would be very much greater to the majority of surgeons than it would to Dr. Dugan, who has an anatomical knowledge and skill which is beyond that of many ordinary operators. It is impossible for us, as teachers, to overestimate the fact that discussions of this kind are bound to reach the ears and observation of those who are less skilled. It should be our duty to consider the conditions surrounding other people and the probable impression that will be given by this character of teaching rather than to attempt to spread a profusion of ideas before the world which it will be impossible for many surgeons to carry out, thereby bringing the advocated operation into disrepute. I am sure that the vast majority of surgeons feel very much more capable of performing an operation of this kind where a guide can be obtained.

As to the wisdom of doing an external urethrotomy, I heartily agree in every statement that Dr. Dugan has made; yet I think the tendency will be to encourage men to do an operation which would probably lead them into difficulties that they would have much trouble in getting out

of. I have seen one of the most prominent surgeons in the United States attempt to do a urethrotomy without a guide, fearing to go into the urethra. After laboring fully two hours he was obliged to abandon the operation, anticipating the result, sepsis and a fatal termination.

Dr. Vance: I have not had a great deal of experience in urethral surgery. I want to say, however, that I do not believe internal urethrotomy ever advisable with the exception of those cases of very fibrous and resisting strictures in the penile portion of the urethra which can be easily reached and split. I am prepared to indorse every thing Dr. Dugan has said in regard to external urethrotomy in the class of cases he mentioned, with the exception of the ease with which the operation may be performed. I have done it three times, and each time in extreme cases where the deep urethra was a veritable pepper-box of sinuses. I succeeded each time in getting into the bladder, and twice in curing my patients; the third case was a recent and very extreme one; the man died of suppression of urine. I believe that when you can enter the bladder without external urethrotomy that gradual dilatation is the operation. I have never seen a case that I could not dilate up to such point as the meatus would admit, and the most of us believe that "once a stricture, always a stricture." The introduction of the sound being a life affair, I do not see why we should cut. I can not agree with the essayist, that in cases where sinuses and urinary infiltration has already taken place he will find the ease he pictures in performing this operation. I would not hesitate in any case to do it, though without a guide, because they are usually cases requiring immediate action, and the operation becomes a life-saving measure.

Dr. Rodman: In my practice I have been exceedingly partial to gradual dilatation. Like Dr. Vance, I have always depended upon it in these cases. Never in a single case of my own have I failed to get into the bladder, and I believe fully, with Dr. Grant, that except in cases where immediate attention must be given you can always get into the bladder. I believe there is too much internal, possibly too little external urethrotomy. I am sure in many of the cases of the character reported by Dr. Dugan that external would be preferable to internal urethrotomy.

Dr. Bloom: I am not an advocate of either form of urethrotomy where it is possible to practice gradual dilatation with success. I wish also to state that I have never done an internal urethrotomy. Of course that does not apply to undoubted cases of impermeable stricture where

you can not introduce a filiform. Even when you try and fail, then wait until the next day and try again. These are the cases that Dr. Dugan's remarks are intended to cover.

Dr. Dugan: I have very little to say in closing the discussion. I have yet to see the case that I could not dissect through and find my way into the bladder within a very few minutes. I am sure that in all my operations I have never been over fifteen minutes opening the bladder; that is, finding the urethra and passing an instrument into the bladder. I do not mean to say that the operation was completed in this length of time. When the stricture is located just in the bulbo-membranous portion of the urethra it is sometimes difficult to find the small opening; after it is found and the filiform introduced, I have occasionally experienced considerable difficulty in turning the Maisonneuve on the filiform; this was before I adopted the use of the string.

There is only one condition where the operation is at all difficult, and that is where urinary infiltration has taken place; that is a most serious complication. Where this condition has existed for twenty-four hours it is almost impossible to do any thing. You simply have to shut your eyes and go ahead until you run up against something. If you fail to hit the urethra, go back and take another start. Even then I have not found the operation as difficult as Drs. Grant and Vance would lead us to believe.

Referring especially to Dr. Grant's remarks as to teachers, I consider we are speaking to-night to practical surgeons, not to students. Of course in addressing a class upon a subject of this character it is necessary to be more explicit that every thing may be properly understood.

Dr. Grant: It is impossible for us to overestimate the influence of remarks made in a society of this kind published to the world; and what I meant was not a criticism upon what Dr. Dugan said, but particularly the wisdom of encouraging surgeons in general to believe that operations such as he described, which are generally looked upon as exceedingly difficult, and very often fatal in the very best hands, can by any kind of means be made entirely simple, without those means are more definitely given than was done by Dr. Dugan.

Dr. Dugan: In answer to Dr. Grant, I stated positively in my remarks that before a man started with this operation he must have an accurate knowledge of anatomy acquired in the dissecting-room, not that gained from books, otherwise I do not consider that he is compe-

tent to attempt it. First, he must be an experienced anatomist, next, he must be an experienced surgeon, before attempting such an operation.

Dr. J. M. Mathews (Urethra Opening Into Rectum; Patient Born without a Penis): I have in the last few weeks met with a unique case, I think, in some respects. A gentleman was brought to me from a northern State, his attending physician accompanying him. The doctor said to me before I made an examination that I would find a peculiar condition of affairs of the rectum. The patient was brought to me to be operated upon for hemorrhoids. Upon making an examination I found this gentleman, who was thirty years of age, married, his young wife accompanying him, had no penis; born without one; his testicles were large, and the urethra opened into the rectum about an inch above the sphincter muscle, consequently he had urinated through the rectum from birth.

The man was suffering a great deal of pain with each action of the bowels and with each action of the kidneys; an examination revealed quite a condition of ulceration around the entire surface of the lower border of the rectum, and defined hemorrhoids which had their attachment just beneath the opening of the urethra into the rectum. I suggested to the doctor that the patient be anesthetized in order to make a more thorough examination, and at the same time to do whatever operation we thought best; that we must take into consideration two or three things. One was, that if he should be unable to make water after the operation, which is very general, it would be a very difficult matter to use a catheter, and I believe it would have been necessary to chloroform him every time it was done. In the second place, if I ligated the hemorrhoids, or cut them off, leaving a raw surface to heal by granulation, the discharge of urine over this raw surface would prevent the healing processes, and perhaps the man would be in a worse condition after the operation than before. Having him anesthetized I divulsed thoroughly the sphincter muscle, which I was sure would relieve the condition of congestion and ulceration. I practiced massage or the rubbing process, the hemorrhoids being the capillary or spongy variety, squeezing out their contents by rubbing them thoroughly, believing that the contraction of the sphincter would be quite sufficient, perhaps, to hold the hemorrhoids in the rectum. Fortunately he experienced no trouble after the operation in micturition; he could have an action of the bowels without pain, and went home in comparatively good condition.

There is one feature about the case that I should mention, it may have something to do with his condition. This man for three or four weeks had had periods of exacerbation indicating fever; he would have a chill followed by a rise of temperature to 104° F. with profuse sweats. And although after the operation the pain and general rectal condition were benefited, perhaps cured, about the third or fourth day he had a chill followed by elevation of temperature and sweat, so that he returned home in a rather weakened condition. The latest advice was that he had not regained his strength and was still having the periodical elevations of temperature. Whether this man is taking on a septic or uremic condition I do not know, as the doctor did not write me fully.

The case is unique, in that this man was born without penis, and the opening of the urethra was into the rectum. I have never read of such a case.

DISCUSSION.

Dr. Dugan: I would like to ask Dr. Mathews whether it might not be the ureter that opened into the rectum, and whether the patient had any prostate?

Dr. Mathews: The opening into the rectum must have been from the bladder. He had a prostate but it was not very well defined.

Dr. Dugan (Radical Operation for Strangulated Hernia—Fecal Fistula): I wish to report two cases of hernia operated upon last week, both of them peculiar. The first patient was brought to me from Indiana, with a hernia of six days' standing. It was believed that he was very much improved; he had been vomiting fecal matter, but this had ceased, but he had a hernia and it had many symptoms of strangulation. I made a free incision and removed quite a mass of gangrenous omentum and returned the stump, feeling, of course, that this was the only trouble; sent the patient to his room in good condition. I saw him the next morning; he was doing well; there was no pain, and he had had a good night's sleep. He had no more nausea than you would expect from chloroform. The next day he was given a cathartic and his bowels moved very freely. A week after the operation I took off the dressings and was surprised to find a fecal fistula. About a quart of very offensive semi-fluid fecal matter was discharged through the wound. Now the condition of the case was this: The doctor in his effort to reduce the hernia had succeeded in returning the enterocele. The gut was so dam-

aged by long strangulation that a slough was the result. Fortunately it had become attached to the abdominal wall near the incision which gave vent to the intestinal contents. I will say that nothing has been done except to introduce a gauze drain, and parts washed and dressed as often as they become soiled; the fecal fistula has taken care of itself, and I believe the patient will make a complete and easy recovery. He has experienced not the slightest inconvenience from it and is feeling well.

No. 2. (Operation for Strangulated Hernia in a "Bleeder.") I operated upon another patient, a few days afterward, with a small hernia which could not be controlled with a truss. The truss was very painful. The patient is a minister, and he tells me that at times in speaking the gut is forced down and gives him great pain, he being forced to stop and lie down. At the time I saw the man it was in the midst of sudden strangulation, and he was very anxious to be operated upon. The operation was performed last Saturday; I saw him the next afternoon, and the young man who had been taking care of him told me that the penis was very much swollen. I went at once to see the patient, and found the penis was almost as large as my forearm. The man had the appearance of having undergone a serious hemorrhage. Upon examination I found that hemorrhage had taken place in the scrotum; there was also evidence of a concealed hemorrhage as high up as the umbilicus. The dressings were removed, the lower part of the wound opened and a large amount of blood washed out; the tissues were still bleeding all along the line of the incision; bleeding freely from the skin. I concluded it was one of those rare cases of "bleeders." I made several small openings, and the blood would almost burst from every wound that I made. It is the first case of the kind that I have ever encountered. I thought for some time the patient would bleed to death. The wound was thoroughly packed for two or three days, and this morning when I saw the patient I found presenting each side a peculiar gray, gangrenous-looking tissue-organized blood clot, and removed a large quantity of broken-down gangrenous material. I simply report this case as one of the "bleeders," and the other case as one of fecal fistula.

Dr. Rodman (Depression of Temporal and Parietal Bones the Result of Injury; Operation): I saw one week ago to-day, at one o'clock, a young man about eighteen years of age, who, while working on the new

Louisville and Jeffersonville Bridge for the Phoenix Bridge Company, received a violent blow on the head from a piece of scantling striking him upon the right side above the ear, knocking his head over against a post striking the other side of the head. The condition was one of mixed contusion and compression at the time I saw him; pulse seemed to be irregular, temperature subnormal, about 96° F.; respiration rather inclined to be stertorous. He could, however, be slightly roused by calling loudly into his ear. I removed him to the St. Joseph's Infirmary at 2:30 o'clock, and operated in the presence of Drs. Griffiths, Mathews, Wathen, and others, who happened to be there at the time. I found a most extensive depression of the upper portion of the temporal and lower portion of the parietal bones—I think the most extensive depression I have ever seen in my life. I trephined and cut out the depressed bone with rongeur forceps. I found that a point of the bone had penetrated the brain; there was an escape of brain substance amounting to a considerable quantity. After making the wound thoroughly antiseptic, I closed the dura mater with catgut sutures and then applied an antiseptic dressing. The patient did very well indeed for four or five days, the symptoms of compression gradually passed away, and the only serious evidence of trouble he had was that there was an occasional twitching of his face. This, I think, began on the fourth day; then on the fifth day he had several distinct twitchings. His mind became very much clearer; there was no paralysis at any time, except slight paresis of muscles supplied by the left facial nerve. Every thing seemed to be running a perfectly normal course up to the fifth day, when there was a slight rise in temperature. The dressings were changed at that time and the wound seemed to be in every way aseptic, and the scalp had healed by first intention. The next day there was a little more elevation in temperature, reaching 99.5° F. Then I thought we had better submit the whole wound to a more careful examination, and open up the scalp wound which had united throughout. This was done, and there was no pus. The dressings were changed again on the sixth day, and a small quantity of pus was discovered, which came from a hernia of the brain. With this exception all symptoms are favorable, though I expect death to result from hernia.

DISCUSSION.

Dr. Dugan: I am very glad that this case has been reported; it is simply another case to confirm the position I took before the Southern

Surgical and Gynecological Society last year, that all these cases with which we come in contact, where there are mental symptoms or paralysis, we may expect very little improvement from operative interference. I am thoroughly convinced of it. The symptoms which Dr. Rodman noticed when this patient was brought to him, or when he was first called to the patient, were symptoms indicating cerebral injury, and not symptoms caused by bone depression. The most of these patients I am sure die whether operated upon or not. In this case, as Dr. Rodman has said, there was injury to the brain tissue, and in all probability an abscess will result. It is altogether an unfavorable case. It is exceedingly interesting, and I am glad it has been reported.

JAS. S. CHENOWETH, M. D., *Secretary.*

Pediatrics.

In Charge of Henry E. Tuley, M. D.

THE TREATMENT OF MEASLES BY EUCALYPTUS INUNCTION.—(Dr. C. E. Shelby, in London Practitioner.) The treatment of scarlatina by inunction with certain eucalyptus preparations, having been strenuously advocated of late, led Dr. Shelby to make a trial of this treatment in the course of a recent epidemic of measles. The type of the disease then prevalent was rather above the average in severity. While the coryzal symptoms were relatively slight the eruption was abundant, persistent, and unusually early in its appearance. In most of the cases a distinct and unmistakable rash was visible on the mucous membrane lining the cheeks, and on the fauces and palate, for from twelve to thirty hours before any eruption was perceptible on the skin, and sometimes even before the development of any coryza, making early definite diagnosis easy.

Treatment was begun about the middle of the epidemic. Cases in one ward, as admitted, were taken, no effort at selection being made. *Oleusaban* was the preparation of eucalyptus used in five cases out of a total of seventy-three during the epidemic. Inunction was begun directly they came under observation, the oleusaban being rubbed over the body night and morning for three days, and subsequently once a day for the first week. The eucalyptus emulsion was given internally. Some of the fluid was placed in saucers about the room, and when cough was troublesome eucalyptus inhalations were given. The immediate effect was to produce great drowsiness. All five slept almost constantly, being roused with some difficulty to take food. There was very little coughing for first three days.

The patients were not markedly thirsty. Three had considerable mucopurulent conjunctivitis, and all had tongues thickly coated with white fur.

In one case the rash was coming out when treatment was commenced, but in the other four its appearance seemed to be delayed, the temperature remaining at 102° F. to 104° F. for four or five days before the appearance of the eruption on the face and body. When it did appear the rash was very copious, much raised, and of a notably dusky tint.

During the fourth, fifth, and sixth days four of the patients developed laryngeal and bronchial catarrh, with complete loss of voice in two cases, and one developed a severe attack of pneumonia affecting both bases in patches, the only case in the whole epidemic of pneumonia occurring as a direct complication. Convalescence was in all five more tardy than usual, and desquamation much more profuse. In one case in particular, at the end of six weeks the desquamation of the palms might readily have been mistaken for scarlet fever.

Summary. Dr. S. summarizes this trial of oleusaban as not encouraging. The unusual drowsiness and general dulling of sensibility, the abnormally furred tongue, the relatively prolonged pyrexia and delayed eruption, together with the pronounced and dusky color of this latter, were some of the obvious symptoms which seemed to indicate an undue retention of morbid products, rather than that speedy and complete destruction of the infective poison which the advocates of this treatment claim as one of its advantages. The exaggerated degree to which the mucous membranes and the skin were indicated in the morbid process is also notable. It should also be mentioned that albuminuria was recorded in only one of the five cases; it was slight and transient, not more than might be explained by the concurrent pyrexia. The remaining sixty-eight cases presented no features of special interest. They were all treated with either a simple saline mixture or with this together with ten grains of benzoate of sodium to the dose. The result was a further corroboration of a previous conclusion that this latter salt does exert some influence in reducing the extent and the duration of the eruption, in relieving symptoms and preventing the development of complications, and in hastening convalescence.

OVARIOTOMY IN CHILDREN.—Aldibert, of Paris, divides the consideration of ovariectomy in children into two parts; first, interference against cysts of the ovary; second, against ovarian tumors, properly speaking. Researches have shown that the greater majority of tumors in children are dermoid. A frequent form of congenital cyst found in children is that of dropsy of the graafian follicle. These cysts may be observed before birth. Patients will not suffer the same inconvenience from pressure in the pelvis as is found in similar tumors in the adult, due probably to the reason that the tumor is carried in the abdominal cavity rather than in the pelvis. Tumors rarely fluctuating present greater resistance than in the adult, owing to the fact that the larger number of them belong to the class of der-

moids. The dermoids are exceedingly mobile, and change position from side to side, according to the decubitus of the child. It would be well to make examination under chloroform, when it should be done through the rectum. Cysts not infrequently grow rapidly. The increase in the size of the abdomen is accompanied with marked respiratory trouble. Torsion of the pedicle and rupture of the cyst are not infrequent. Beale reports a case in which the child was only six weeks old, where the cyst ruptured and was followed by fatal peritonitis. Presence of these cysts increases the rapidity with which puberty occurs. Diagnosis is frequently attended with great difficulty. Growths have been mistaken for sarcomata of the kidney, hydatid of the liver, and tubercular peritonitis. The possibility of premature pregnancy should always be kept in mind. These tumors occur with greater frequency at or near puberty. The younger the individual the greater is the mortality likely to be after operative interference. Of forty-two cases reported there were five deaths, a mortality of 11.9 per cent. In children between one and a half to three years, out of five cases four were fatal, a mortality of 80 per cent, while between the ages of four and twelve there was only one death, or a mortality of 2.7 per cent.—*The Universal Medical Journal*.

Reviews and Bibliography.

A Practical Treatise on Materia Medica and Therapeutics. By ROBERTS BARTHOLOW, M.A., M.D., LL.D. Eighth edition, revised and enlarged. 820 pp. New York: D. Appleton & Co. 1893.

It is certainly very high commendation that a work on therapeutics can at this day reach a circulation of eight editions. Not only has this been the case with Bartholow's Therapeutics and Materia Medica, but it is also held in high esteem by writers in European countries. The author's wide learning, his great industry, and his steady perseverance must needs win for him an exalted station. There is one feature prominent in all of his works that distinguishes them from those of most men of equal learning and experience, and that is his apparent great faith in medicines. It must be a happy physician indeed who could always prescribe in the spirit in which Dr. Bartholow writes of therapeutics, delightful experience to feel that one is dispensing blessings and only blessings to his fellow-men, and that medicines are to be classed only as the Kentuckian is said to have characterized whisky, as good, better, and best.

Without going extensively into particulars, we think there are few except those who follow him as authority who will accept his dictum that belladonna has a real curative power in idiopathic erysipelas, and that it

makes a distinction in its curative action between facial erysipelas and the same disease in other parts, or that varicose veins can be cured by the injection of ergot. Among the many particular features to be commended is the author's cautious use of belladonna in opium poisoning. "The author," he says, "has a strong conviction, arising from some painful personal experience, that it is a fatal error to attempt to restore a patient in opium narcosis to complete consciousness by repeated doses of belladonna." It would not be making a bold assertion to say that no one ever recovered from opium poisoning with belladonna who could not have got well without it, but it has killed many.

Faradization is commended in this condition as more seemly, more humane, and also more efficient than flagellation. If it were not for the warning of a few gray hairs the mirror shows the reviewer, he would hope to see the day when any one who should flagellate a subject of opium poisoning would be prosecuted for assault and battery. Flagellation is, in his view, quite out of place in the treatment of opium poisoning, except for the fellow who brings in a faradic battery to make the patient's muscles dance in season and out of season during the respirations and the intervals, and thus exhaust their power and sensibility.

The work is one of large learning, of great industry, and is well written, and, barring the shortcomings believed to be correctly pointed out, is deserving of the high place it occupies in the world of therapeutic literature.

D. T. S.

The Physician's Pocket Day-Book, designed by C. HENRI LEONARD, M. A., M. D., Professor of Medical and Surgical Diseases of Women and Clinical Gynecology in the Michigan College of Medicine, Member of the American Medical Association, etc. Price, \$1. The Illustrated Medical Journal Company, Detroit, Mich.

This new work accommodates daily charges for twenty-five or fifty families weekly, has complete obstetrical record for ninety-four cases, and monthly memoranda for Dr. and Cr. cash account. It is good for thirteen months, and of convenient size for pocket carrying. In addition it contains a list of doses of old and new drugs, the poisons and their antidotes, weights and measures, and other useful information for the busy practitioner.

J. L. H.

Transactions of the American Surgical Association. Volume the Eleventh. Edited by DE FOREST WILLARD, M. D., Recorder of the Association. Philadelphia: Printed for the Association and for sale by William J. Dornan. 1893.

This is one volume of society transactions that is looked forward to with anticipative pride by every American physician, for the reason that it can be classed with the best that can be produced in any country. The present number is no exception to the rule of high excellence that has characterized previous numbers, and whoever has it for his guide in the operative procedures it embraces may well feel that he is guided by the fullest light at present attainable.

D. T. S.

THE AMERICAN PRACTITIONER AND NEWS.

"NEC TENUI PENNÆ."

Vol. 17.

SATURDAY, JANUARY 13, 1894.

No. 1.

D. W. YANDELL, M. D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

A Journal of Medicine and Surgery, published every other Saturday. Price, \$3 per year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

Books for review, and all communications relating to the columns of the journal, should be addressed to the Editors of THE AMERICAN PRACTITIONER AND NEWS, Louisville, Ky.

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JOHN P. MORTON & COMPANY, Louisville, Ky.

THE NEW LAW REGULATING THE PRACTICE OF MEDICINE IN KENTUCKY.

This law was approved by the General Assembly of the State, April 10, 1893. Soon thereafter the American Practitioner and News laid it before its readers with, we think, appropriate comments, and subsequently the journal from time to time has sanctioned the efforts of our most efficient State Medical Board in making the law effective to the protection of the profession and the people against the army of quacks who, driven out of other States by similar laws, had found Kentucky eligible ground for their villainous operations.

The old law had too many loop-holes among the meshes through which the unclean birds might escape, but the new law made the net fine and homogeneous, and contained provisions by which the resident and peripatetic quacks might be caught and driven out of the State. Nay, more, it suggested to our auspicious perceptions the possibility, which we had supposed was to be realized only in the millennium, of bringing into the line of rectitude those fellows who, under the cover of a diploma from a first-class medical college, or a certificate from a State Board of Health, and often with a fair equipment of medical knowledge, are daily playing the quack to the detriment of honest men in the profession.

With such a vista in so fair a perspective opening to view as we gazed through the editorial goggles, our surprise was by no means little

when we learned that some members of the profession objected to the law, and would do every thing in their power at the present meeting of the State legislature to render it null and void, or at least to weaken its effect by damaging amendments. This opposition we are informed is a personal one—and if so, should have no weight in a question of such vital importance alike to the people and profession of the State.

The opinion of the Kentucky doctors, with perhaps a dozen or two exceptions, is in favor of the law. In Louisville we have heard not one dissenting voice, while the profession in general, and in special resolution through some of its societies, have given it unqualified approval. What is thought of the measure in other parts of the State may be seen in the following.

In the published minutes of the "Columbian Session of the North-eastern Kentucky Medical Association, held in Maysville, October 25, 1893," we find that "The Association unanimously voted an indorsement of the New Medical Practice Act as passed by our last legislature." Further, the secretary of this society, in a paper read upon that occasion, quoted the act in full, with fitting comments, and met by unanswerable arguments every plea of the objectors to it.

The president elect of the Kentucky State Medical Society has wisely issued the following, which we hope ere this is in the hands of every doctor in the State:

DEAR DOCTOR: I am informed that the "quacks" of the State are likely to make a combined effort, during the coming session of the General Assembly, to repeal the new medical law, or to weaken it by some amendment which will let them in. Having been defeated at every point before the Governor and courts, this is their last resort.

This law has met with determined opposition from this class, and it behooves every reputable physician to use what influence he may have with his Senator and Representative in order that the tampering with or repealing of said law may be prevented.

I therefore take the liberty of addressing you this letter, in the name of the State Society, to warn you of the impending effort to be made, and to ask that you would interview or write your representatives at once with the object of ascertaining their views on this question, and to supply them, if necessary, with such information as will aid them to resist successfully any attack upon the law.

The law, you know, simply protects you in the honorable discharge of your duties as a physician, and prevents the public from being imposed upon by traveling quacks and advertising charlatans.

JOHN Q. A. STEWART, M. D.,

FRANKFORT, KY., Dec. 21, 1893.

President Kentucky State Medical Society

The following, from the oldest and most influential body of practitioners in the Bluegrass region, leaves no doubt as to the position of the unbiased best element of the profession in the matter:

THE NEW MEDICAL LAW—PROCEEDINGS OF THE LEXINGTON AND FAYETTE MEDICAL SOCIETY.

Whereas, certain publications have been circulated in this State placing the physicians of Lexington and Fayette County in an attitude of being opposed to the recently enacted law governing the practice of medicine in the State of Kentucky; and, whereas, this Society is cognizant of the fact that out of a total of seventy-four physicians of this city and county sixty-seven reputable physicians have been indorsed by the Referee and made application to the State Board of Health for license; therefore, be it

Resolved, That this Society, in regular session, approves the law most heartily; and we believe that it is constitutional and should be upheld by every reputable physician in the State, and we do hereby offer our aid and assistance to the State Board of Health in carrying into effect its requirements and provisions.

Resolved, That a copy of these resolutions be furnished the representatives of this city and county, and that they be requested to uphold and defend the law, and oppose any legislation that would tend to weaken the force of it, believing as we do that this law is for the welfare and the protection of the people of this State.

Resolved, That a copy of these resolutions be furnished the press of this city, and that they be requested to publish the same, in order that the attitude of this Society may be known and given full publicity.

F. H. CLARK, *President*.

R. C. FALCONER, *Secretary*.

A. S. ALLEN,	H. S. ATKIN,	DAVID BARROW,	W. L. BLANDING,
W. A. BROCK,	JOS. BRYAN,	L. M. BOSWORTH,	W. O. BULLOCK,
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A. P. TAYLOR,	L. B. TODD,	C. W. TRAPP,	J. F. THOMPSON,
R. L. WILLIS,	F. G. YOUNG,	RICHARD WHEATLEY,	

NOTE.—The pamphlet-circular so widely distributed in October last, containing a card from the Bowling Green physicians, newspaper clippings, etc., was gotten up by the Copeland & Welsh concern, of Louisville. No reputable physician had any thing to do with it except to have his name used without authority.

In addition to this we have a letter from the Secretary of the State Board, which informs us that two thousand and eighty physicians have

registered in the State at large to date. The dissenters in Warren County are only eight in number, and these seem to have nothing better than personal feeling against the Secretary or other members of the Board to urge against the law.

In closing, the Secretary says:

As laws similar to ours exist in nearly all the other States of the Union, Kentucky has been the dumping-ground for these vampires in the past, and an interference with the present law would be accepted by them as a cordial invitation to come. By the way, all except Welsh have left the State.

Ye gods, what a savor of purity pervades the medical air of "Old Kaintuck"! But one quack remains to taint the atmosphere, and he, though operating behind a diploma, issued in good faith, but perverted from its purpose, "will fold his tent like the Arabs and as silently steal away" when the full force of the new law is brought to bear upon him. No doubt those interested in getting money out of the public by false pretensions will move heaven and earth to destroy the law or render it inoperative, but we do not see how any honest physician or intelligent lover of his kind can consistently or conscientiously favor its repeal or amendment.

PERSONAL.

Dr. John L. Howard, who anonymously has been doing some good work for the journal, becomes with this issue assistant editor. The doctor is an industrious and talented young man, and the readers will in future reap rich fruit of his labor. We are also happy to announce that Dr. Ewing Marshall, for some time a valued contributor to the journal, will in future be one of our collaborators.

Notes and Queries.

CREOSOTE IN PULMONARY TUBERCULOSIS.—Dr. K. Hochhalt (*Memorabilien*, Heft 9, 1893), a hospital physician of Buda-Pesth, has concluded a series of experiments in over one hundred patients, and says that pure creosote, not guaiacol, is most worthy of confidence in the internal treatment of pulmonary tuberculosis. He does not agree with Sommerbrodt that by the stomach is the best method of administering the drug, for it is thus rarely tolerated by phthysical patients, and especially by those who have only shortly before suffered from fever. He prefers suppositories or rectal injections. One to two suppositories *per diem* are sufficient to begin treatment with, for a larger dose will produce fever on account of its irritant action. He uses the following:

Creosote (gtts. xv),	gms. 1;
Cacao butter (3vjss),	gms. 25.

Sufficient for five suppositories.

Later he employs injections of an oily solution:

Creosote (gtts. xxx),	gms. 2;
Almond oil, (3v),	gms. 20.

Inject from five to six grams (3j $\frac{1}{4}$ —jss) daily.

Patients do not tolerate larger doses well for a long time. By employing still larger doses symptoms of acute creosotism are observed—confusion, often trembling of the limbs, dyspnea, irritative cough, and hemoptysis. The slightest hemorrhage is an indication of intolerance of the organism, and the drug should be suspended, at least for a time. Revillet's forced treatment he regards as an actual poisoning. Fever is a contra-indication, hence it is only to be employed in feverless cases, for it will certainly aggravate it. In extensive bronchiolitis it is not to be used, for it does not aid expectoration, as it rather dries up the bronchial secretions. The rectal injections, even if given for weeks, do not irritate the rectum nor provoke cramps. He injects one half gram (7½ grs.) for fourteen days, and then suspends it and administers for one to two weeks only ferruginous preparations or arsenic, after which one may return to the injections. He concludes that it acts as a preservative to the phthysical organism, though not as a specific. The appetite and nutrition increase. The catarrhal symptoms are reduced or cease entirely. New feverish attacks and pulmonary destruction is less frequently observed with creosote than without the drug. Extensive cavities are of course uninfluenced, but peribronchitic infiltration and apex catarrhs he has observed to disappear either partially or completely. The pulmonary hyperemia causes encapsulation of the tuberculous foci and formation of new interstitial tissue.—*Cincinnati Lancet-Clinic*.

Special Notices.

ARISTOL IN PSORIASIS.—Aristol was recommended as long ago as 1890 by Dr. Schirren, who successfully employed it in psoriasis guttata and psoriasis vulgaris. He made use of a paste of 10 per cent of aristol with zinc and starch, though in certain cases he found a 10 per cent ointment of aristol with lanolin or even the dry powder preferable. The scales loosened on the second day. Complete cure was obtained in 6 cases, and in one case of psoriasis numularis pruritus ceased on the first day. Later, in July, 1891, Dr. Barclay found ample confirmation of Schirren's results, and he wrote to the *British Medical Journal*, July 11, 1891, that he desired "to recommend aristol as an excellent remedy for psoriasis." Still later Dr. Weissblum reported 23 cases of psoriasis successfully treated with 10 to 20 per cent ointments of aristol, and similar results have been obtained by other observers. There have been some failures, and some cases in which the treatment appears to have been early discontinued, but the conclusion seems to be general that in psoriasis aristol should be perseveringly tried. In a recent article on psoriasis by Dr. R. C. Longfellow (*Atlanta M. & S.*, September, 1893,) the author recommends aristol in ointment of roses as "the safest and least objectionable of local applications."

In the treatment of Nervous Diseases and General Debility, McArthur's Syrup Hypophosphites demonstrates its restorative powers. Here it is not the stimulating action of the remedies usually classed as tonics that is needed. The organic powers of the system are already taxed to their utmost ability to carry on the physiological processes of life. The hypophosphites of lime and soda gives the much-needed effect in these conditions; not that of a stimulant by irritation, but that of a true nutriment to the starving tissues. Its tonic effects are permanent, as they are the effects of a richer blood supply, bringing healthy food and oxygen to the tissues. Thus the patient is gradually brought up to his normal condition.

SENNINE IN ECZEMA AND VENEREAL ULCERS.—Eureka Springs, Ark., October 9, 1893. Dios Chemical Company, St. Louis, Mo. Gentlemen: The sample of Sennine you sent me came safely to hand, and I happened to have some cases that visited my office daily for treatment. In two cases of eczema covering the inner side of thigh I applied the Sennine just as I received it from you; that is, full strength, dry, and I am happy to say it acted like a charm in both cases. Again, I applied Sennine to venereal ulcer, and must say that it did all any one could ask. I look upon Sennine as the antiseptic of all others, and shall continue its use in my practice.

W. R. HARDESTY, M. D.

I HAVE found the following formulæ to be of great service in all bronchial and pulmonary troubles:

- R Terraline, $\bar{3}$ iv;
 Creosoti (beechwood), $\bar{3}$ ss.
 M. Sig: Take a teaspoonful every four hours.
- R Terraline, $\bar{3}$ iiij;
 Vini xerici, $\bar{3}$ ij.
 M. Sig: Take a teaspoonful every four hours.

J. C. HAIRSTON, M. D., Clarksville, Tenn.

"Paraldehyd" possesses many of the good without the evil qualities of chloral, used in Insomnia resulting from various causes. The objectionable taste of the chemical is to a great extent disguised in Robinson's Elixir Paraldehyd (see page —), which is an elegant preparation.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

VOL. XVII.

LOUISVILLE, KY., JANUARY 27, 1894.

No. 2.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ECZEMA OF THE LOWER EXTREMITIES.*

BY J. E. HAYS, M. D.

Professor of Anatomy and Dermatology in Louisville Hospital College of Medicine.

Having recently had an experience in the treatment of some cases of eczema involving the lower extremities, it has occurred to me that there were some clinical features connected with them interesting enough to bear narration.

The cases are three in number, and they illustrate to some extent the remarkable range of manifestations seen in this disease.

Eczema is an affection that is familiar to every practitioner on account of its comparative frequency. It is a disease that may invade the skin in any region of the body, and usually exhibits such well-marked characteristics as to make its recognition an easy matter. These characteristics are, however, modified to some extent by locality; for instance, an eczema of the palm differs considerably in appearance and clinical history, as well as in its causation, from that occurring on the face, consequently the treatment which will prove successful in these different localities must be in the main essentially distinct.

In eczema of the lower extremities we encounter a cause that is peculiar to this region on account of the usually dependent position of the parts. This cause deserves special attention, and on this point I will quote a sentence or two from Jamison's Text-book on Diseases of

*Read before the Louisville Medico-Chirurgical Society, November 24, 1893. For discussion see p. 50.

the Skin: "The causes of eczema of the lower extremities are often much more distinctly local than those which operate elsewhere. We must remember that for sixteen hours at least out of the twenty-four the position in which the leg is placed is, in a large majority of persons, a vertical one. When standing or walking the whole limb is vertical; when sitting the leg is so, or, at all events, is placed at an angle which diverges considerably from the horizontal." In consequence of this long-continued dependent position of the leg, it sometimes happens, especially among those whose occupations compel them to lead sedentary lives, that the factors concerned in returning the blood-current to the heart fail to perform their duties satisfactorily. As a result of this sluggish circulation, the nutrition of the skin in this locality becomes perverted, the terminal nerve filaments are irritated, and an outbreak of eczema is likely to be induced as a consequence.

No. 1. The following case, which came under my care June 4, 1893, seemed to be caused in this way: The patient was a man, aged forty-three; occupation that of book-keeper; the veins of both legs had been slightly varicose for several years. He had the appearance of a drinker, and admitted that he indulged very freely in stimulants at times, thereby aggravating his malady. The eczema was confined wholly to the lower extremities. There was a considerable extent of surface involved on both legs, one leg being apparently no worse than the other. The outbreak had made its appearance about three months previously, showing itself first at the inner side of each ankle, and thence rapidly spreading upward. A large part of the involved surface was raw and oozing, the rest covered by an abundance of flaky scales, the surface beneath being of intense redness. There was considerable infiltration in both legs. The pain in the affected limbs was at times almost unbearable and greatly interfered with the pursuit of his vocation. He could not stand the pressure of a bandage, and the local irritation of the clothing greatly aggravated the malady. His general health was in poor condition, tongue was coated, digestion faulty, urine scanty and highly colored; there was also some bronchitis. In this case, believing that posture had been a potent etiological factor and could be made equally as potent in bringing about a cure, I at once had him to quit work, and, as far as possible, strictly maintain himself in a recumbent position, with the legs slightly elevated. Lassar's paste was kept constantly applied over the involved area, and for a few days he was given internally a combination of mercury, digitalis, and squills. In

a remarkably short time he was entirely freed from his eczema. The skin at present is everywhere smooth, and no trace of the trouble can be seen, except some slight pigmentation. He is now wearing a flannel roller bandage on both legs with the view of preventing a relapse, as his duties compel him to remain standing at a desk a considerable part of each day.

No. 2. The second case occurred in a young man who apparently was in the best general health. He worked for a florist near the city. He placed himself under my care about the middle of last July. The eczema was of several months' standing, and was confined to the left lower extremity. It began on the inner side of the ankle and spread until the lower half of the leg and inner part of the foot were involved. No cause could be assigned for the outbreak. It began with redness, swelling, and violent itching. The latter symptoms, however, became much less later on, though usually present to some extent. There were no raw or discharging spots when I saw him, but the entire patch was covered with crusts and scales, and was very tender. Before coming under my care he had used vaseline and various lotions unavailingly. Doubtless he had greatly aggravated his trouble by frequently bathing the parts affected with different liquids, more especially soap and water. The treatment in this case consisted simply in the application of a salve composed of ammoniated mercury, oxide of zinc, and vaseline, the use of a well-applied bandage, and the avoidance of water to the diseased part. A complete cure was effected in ten days. The skin is now quite soft and pliant, and the cure bids fair to be a permanent one.

No. 3. The third case is one which gave the history of an obstinately recurring eczema of both legs, the subject being a middle-aged man. In some respects it resembled the first mentioned case, the variety being that known as eczema rubrum or madidans. It had greatly annoyed him for a period of three years; at times he would be practically cured, and after a brief interval, without any known cause, a fresh, angry outbreak would occur. The trouble never showed itself elsewhere than on the legs. When attacked both legs always showed a remarkable degree of symmetry as regards the area involved and the appearance of the eruption. When I first saw him both legs were weeping, fiery red, and intensely itchy. The itching and burning were more distressing at night, interfering with rest, and making him weak, nervous, and irritable. He was using very freely an anti-pruritic lotion of carbolic

acid and tar, which gave him some comfort, but did not seem to exert any favorable influence over the eruption as regards its removal. This lotion was discontinued, and the patient kept in bed or on a couch pretty constantly, so as to obtain for the affected limbs the benefit of rest and elevation.

His treatment internally consisted of a tonic and laxative. Lassar's paste, slightly modified, was the only remedy applied to the eruption. Speedy improvement ensued, the itching was allayed, and in three weeks the skin had nearly regained its normal condition of healthful activity.

LOUISVILLE.

CASE OF ENTERO-EPIPLOCELE: STRANGULATED, BURST GUT; OPERATION; RECOVERY.

BY W. E. SLEET, M. D.

I was called Sunday, August 20, 1893, at 10 A. M., in consultation by Dr. T. C. Collins, of Midway, Ky., to see Mr. H., aged forty-nine, with strangulated hernia. Patient was first seen by Dr. Collins about 8:30 A. M. He had been drinking freely for several days. He said that he awoke at 2 A. M. and found the strangulation, but that he had never before had any serious difficulty in reducing the hernia. Having been ruptured for about twenty years, he tried all his usual methods before sending for his physician. Upon Dr. Collins' arrival he immediately gave him hypodermically morphia and atropia. He also used hot applications to the parts and inverted the body, but all to no avail. After consultation the patient was anesthetized, and by careful taxis no reduction could yet be made.

Drs. R. C. French and S. J. Anderson were then called in to assist in the operation. The parts were then shaved and washed in 1 to 3,000 bichloride solution, and then with alcohol. The surrounding parts were covered with towels wet with bichloride solution, leaving only the field for operation exposed. An incision was then made, and the sac readily opened, which was found to contain both omentum and intestine (entero-epiplocele), both of which were found to be very much congested, more than probably due to the severe taxis made by patient himself before sending for his physician. The protruding omentum was ligated with catgut in five or six sections, and then cut off. The

stump of the omentum was returned to abdominal cavity without any difficulty whatever.

The intestine was then examined very closely. There were quite a number of spots of extravasated blood beneath the peritoneal layer, some of which were larger than a silver dime. The gut was not in a sphacelous condition, but was bordering very closely upon that state. I tried to return the intestine, but found it impossible. Then with a blunt-pointed bistoury I incised the internal ring in the left upper quadrant (patient's hernia being on the right side) as far as I thought it wise to cut, and yet the gut could not be reduced with the body inverted. I then put the index and middle fingers of my left hand into the internal ring, hoping thereby to dilate the ring sufficiently so that reduction could be made. While my fingers were so placed the patient was put on the head and shoulders in a kind of Trendelenberg position, and while Dr. Collins was manipulating the gut above my hand it burst, and the feces within the strangulated knuckle of gut escaped upon the wound. I continued to hold my fingers within the internal ring, and thereby protected the peritoneal cavity.

After thoroughly cleansing the parts and placing a sponge at the internal ring, I then proceeded to suture the rupture in the gut. The wound was near the mesenteric border, and about three quarters of an inch in length, or about one fourth of the circumference of the gut. Three Lembert sutures were taken with small catgut and the wound closed. Then a small lobe of the mesentery, which was attached by a small pedicle, was turned over and "stitched" over the already closed wound with a continuous suture of the small catgut, the stitches being taken only through the peritoneal layer of the gut. The parts during the operation having been kept warm by towels wet with bichloride solution were now carefully cleansed and returned to abdominal cavity. At this stage of the operation the patient was in such an extreme state of collapse that it was decided to close the wound and not attempt a radical cure, which had been intended by performing Macewen's operation. The sac was left *in situ*, and two stitches were taken with heavy catgut in the conjoined tendon and Poupart's ligament, and thus firmly attached. The external wound was then closed with two deep sutures of heavy catgut, and then superficial stitches with silk. The wound being closed entirely, with no attempt at drainage, was dressed antiseptically, and patient returned to bed. At this time the pulse was very weak. Patient was wrapped in hot blankets and surrounded with

bottles of hot water. We still kept up hypodermic injections of whisky, digitalin, etc., although it seemed useless, as the pulse was scarcely perceptible. After some ten or fifteen minutes the patient began to show effects of the stimulation, and vomited. At 3 P. M. patient was conscious; had vomited twice. At 6 P. M. pulse 112. Took whisky and a hypodermic injection of morphia.

August 21st. Patient rested well during the night; had vomited only twice. 12 A. M. Pulse 108, temperature 99.4°; gave morphia hypodermically. 6 P. M. Pulse 116, temperature 101.2°; gave morphia hypodermically.

August 22d, 9 A. M. Patient rested well during night; no vomiting, pulse 108, temperature 100°; scrotum slightly swollen. 6 P. M. Temperature 99.2°, pulse 108; had taken whisky several times during the day.

August 23d, 9 A. M. Rested well during the night; temperature 98.8°, pulse 102; took Mellin's food. 6 P. M. Temperature 100°, pulse 110; complained of gas in bowels, which was readily relieved by use of rectal tube.

August 24th, 9 A. M. Temperature 100°, pulse 108; rested well during night, no pain whatever; took Mellin's food and milk; wound dressed.

August 25th. Temperature 98.8°, pulse 100. 9 P. M. Temperature 98.8°, pulse 100.

August 26th, 9 A. M. Patient says that he feels well; dressed wound.

August 27th, 9 A. M. Temperature 98.5°, pulse 84; gave one ounce olive oil. 3 P. M. Patient had three healthy discharges from bowels during day; no blood; no unnatural odor.

From this date the patient continued to improve, and on the twentieth day after the operation he was able to attend his usual avocation, that of a brick-mason. The omentum which was excised weighed six and one eighth ounces.

It has now been nearly four months since this operation was performed. There has been no return of the hernia whatever. Patient wears no truss, only a simple roller bandage. Says he suffers no pain whatever, and has no "dragging and pulling" down sensations about the parts, as formerly.

This case is reported simply to show the result of "an intended operation" for radical cure, when only the sac was opened and the parts reduced. Possibly a cure has been effected simply by adhesion of the walls of the sac.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, November 24, 1893, Dr. T. S. Bullock, Vice-President, in the chair.

Dr. W. L. Rodman (Radical Operation for Strangulated Hernia ; Incomplete Sac ; Recovery) : I saw, Saturday night at six o'clock, with a practitioner in the eastern portion of the city, a married woman, forty-seven years of age, the mother of thirteen children. She had been the subject for years of a left inguinal reducible hernia. She noticed last Friday morning (week ago to-day) that the hernia had descended and she was unable to return it. It was the seat of great pain ; she began to vomit, and after it had lasted for a couple of hours she then sent for her family physician. He recognized that it was probably a strangulated hernia, but, on account of a very remarkable experience of the mother of this patient about a year ago, he was disposed to wait for a few hours for further developments before advising operative interference. The remarkable feature of the mother's case was that she had been the subject of hernia for years ; it became strangulated, and he called in a surgeon to operate after making several unsuccessful attempts to reduce it. The surgeon in the course of a few hours arrived with two or three assistants, prepared to operate. When they went into the room ready for the operation, the tumor had disappeared, and the old lady is still alive and well to-day. After having this experience with the mother the physician was more careful about the daughter. He saw her again late in the afternoon (Friday) ; she had been given opium in small doses during the day ; bowels had acted twice rather copiously ; these actions came from the lower bowel. She continued to vomit, however, all Friday night. Saturday morning she was still vomiting, but the tumor was not as painful as it had been.

When I saw the patient at six o'clock Saturday evening I was sure that it was strangulated hernia, and advised early operation. In operating I found a rather singular condition of affairs. The hernial sac was only an incomplete one, and it is the only case of strangulated hernia that I have ever seen wherein the sac was incomplete. I was very

*Stenographically reported by C. C. Mapes.

much puzzled when I cut down upon it, because I could find the sac posteriorly but not anteriorly. The specimen shows it very clearly. As the gut was in very good condition it was returned; the sac, what there was of it, was ligated high up with silk and removed. The patient was passing gas in fifteen or eighteen hours, had an action of the bowels about twenty-four hours after the operation, and has done uninterruptedly well since, never having had a bad symptom.

The most interesting feature was the incompleteness of the sac. I believe this to be very uncommon in inguinal hernia. Of course we do have cases of incomplete sac in herniæ of the bladder, cecum, and the large gut lower down; also in ventral hernia there is sometimes no sac at all, and in other herniæ when they occur spontaneously and where they rupture through the peritoneal coat. I took the gut in this hernia to be cecum or some other portion of large intestine. Another interesting feature in connection with this case is that the constriction was at the external abdominal ring.

DISCUSSION.

Dr. A. M. Cartledge: The case is certainly a very interesting one, and I do not see what else it can be except a cecal hernia.

Dr. H. A. Cottell: While I may be prepared to find the cecum sliding down from the right side under the peritoneal fold, a portion of it presenting without peritoneal covering at the right abdominal ring, it seems hardly possible that it could present at the opposite side. It is quite a common thing in dissections to find the cecum not completely invested by peritoneum. It is rare that you find the appendix vermiformis incompletely invested.

Dr. Cartledge (Pyosalpinx, Result of Gonorrhea; Pyosalpinx, Result of Abortion and Puerperal Fever): I have some specimens here illustrating two pathological conditions in the same structure. I have been struck for some time, in fact for several years, with the difference in the changes that take place in the fallopian tubes as a result of gonorrheal infection, and as a result of inflammation due to the extension of septic trouble from the endometrium; notably in cases following abortion and puerperal fever.

I have never seen any thing in regard to the difference in the conditions found in advanced cases. I am convinced in my own mind that the gonorrheal tube is far less dangerous than a tube after abortion and

puerperal fever. I am further satisfied that tubes enormously distended with pus may exist for a great length of time and occasion absolutely no trouble until probably there are other sources of irritation excited by some subsequent trouble.

Another thing, in two tubes of equal size and equal distension, the gonorrheal tube will usually be much the easier removed.

This has often occurred to me, and I have had two recent cases beautifully illustrating the two conditions. I do not think there is anything in pelvic, abdominal, or any other kind of surgery to be compared with the difficulty experienced in removing some of these tubes after infection from abortion or puerperal fever.

These are the cases wherein rupture has taken place, where you have a peri-tubal abscess, sometimes in the broad ligament, sometimes in the fold of the peritoneum pushing it up. In cases wherein the tube ruptures early, with infection from the streptococcus, you have adhesions of a different character from those found in the gonorrheal tube. In the latter case the tube is usually enormously distended with pus, the adhesions slight, and altogether the removal of such a tube is comparatively easy. But, as I have said before, in tubes infected from other causes than gonorrhea, such as abortion, puerperal fever, etc., the adhesions are very dense and hard; the tubes usually rupture, and operation for their removal becomes exceedingly difficult. It is not infrequently that the adhesions are so universal and extensive to the intestines and all adjacent organs that in stripping them off the intestine is broken. I have had three such cases recently, two following puerperal fever and the third following abortion. The patients, notwithstanding this, all made a very easy recovery. It is nine weeks since the last operation was performed, and the woman has gained forty-five pounds.

DISCUSSION.

Dr. J. B. Marvin: What is the cause of rupture of the bowel in these cases? Has the tube ruptured before?

Dr. Cartledge: The trouble is in separating the coils of the intestine from the adhesions which surround them. In gonorrheal cases, although the intestinal adhesions may be extensive, they are easily stripped up without breaking the bowel. In the other class of cases I referred to this can not be done as a rule without injuring the bowel. In the case I reported following abortion the intestine was broken and quite a large quantity of greenish-colored offensive fecal matter escaped. However,

no trouble resulted after free irrigation and drainage, and no further fecal matter was seen.

Dr. Cottell: The pathology of these cases is interesting. Why the pathological process resulting from a gonorrheal infection should be so much less extensive than that which results from infection of puerperal fever following labor and abortion is an important question. It must be the difference in the microbe involved in the process in each case. In cases of so-called gonorrheal infection the staphylococcus is probably the only organism involved, while in the other class of cases it is the streptococci that do the mischief. If the difference in the intensity of the trouble is dependent upon the kind of microbe concerned, it is one of the most important pathological discoveries of the day.

Dr. Rodman: I would like to ask Dr. Cartledge how many cases he has had, wherein the bowel was ruptured in manipulation, which have gotten well?

Dr. Cartledge: I have had, I believe, in all five cases wherein there has been a rupture of the bowel, all of which have gotten well. The fecal fistula developed on the third day usually, sometimes the fourth.

The essay was read by Dr. John E. Hays; subject, Eczema of the Lower Extremities. [See page 41.]

DISCUSSION.

Dr. Wm. Bailey: It seems to me that the quantity of salicylic acid in the paste described by Dr. Hays is a very small percentage. I believe that the plaster mull commonly used contains thirty-eight per cent of this acid. Eczema, as we all know, only affects the epithelial layer of the skin, and the only successful treatment is to bring about a complete destruction of the epithelial layer. When this is accomplished the eczema is practically cured. This is where the success of salicylic acid comes in. I have recently had a very obstinate case of palmar eczema. I took off a layer of epidermis, and so far as it was destroyed perfectly I would have for a time at any rate a perfectly smooth, healthy skin. It is not a characteristic of this disease that it is severe or dangerous because of its superficial character, although there may be some bleeding or oozing for a time, cracking of the skin, etc. Yet this does not make the disease a very severe one, because the tissues involved are not deep enough.

Dr. Marvin: I think there are one or two points that Dr. Hays has

not brought out which are of some interest. Eczema of the legs of the character he speaks of in one case you seldom see in children or young people. You often see children with eczema of the head and body, but seldom of the legs and feet. It may be papular, vesicular, or suppurative, or you may have the dry variety spoken of by Dr. Bailey. Eczema rubrum or madidans, I think, is the variety that usually attacks the lower extremities, especially in people past the middle of life. It is very frequently associated with varicose veins. Sometimes it may not be varicosity of the superficial veins but of the deeper ones, and, by running the finger over the limb, soft depressions with hard edges will mark the seat of the useless valves. The cases I have seen have nearly always been characterized by great weeping and oozing. It occasionally affects the anterior aspect of the leg, but more commonly the inner side higher up.

My experience has not been as good as that of the essayist in one respect: I would infer from his remarks that he anticipates a permanent cure in these cases; that as soon as the irritation ceases and the skin heals, smooth and healthy looking, that a cure is effected. In my experience they break out again very frequently.

One point in regard to treatment that Dr. Hays did not mention is the rubber bandage. I think a certain proportion of these cases with a pure rubber bandage will heal better than with paste, lotions, ointment, or any external application. I have had one or two such cases. One was a very remarkable case; the weeping was so great that we were forced to use dusting powders, but ordinarily this is not necessary. I find the best results are obtained from the gum bandage applied directly over the surface, no matter how denuded or painful it is, leaving the bandage on during the day, replacing at night with simply a cotton or lint dressing. This treatment I obtained from Bulkley, and have used it successfully for a number of years.

In regard to salicylic acid, I believe best results are obtained from it in the dry variety of eczema. People who labor out of doors during the winter season are often affected with a dry form of eczema or cracking of the hands on account of the cold and wet; and in these cases salicylic acid, used in the strength advocated by Dr. Bailey, gives excellent results, but in the character of cases mentioned by Dr. Hays I think stronger than ten grains to the ounce would not be advisable.

Where a drying powder is indicated, I think the stearate of zinc compound is better than any thing else. It makes a smooth, impal-

pable powder, and can be combined with boracic acid, iodoform, or other medicaments.

Dr. Cottell: My experience in the treatment of eczema is very extensive. I have seen a great deal of it upon different parts of the body. I remember a case wherein a man had eczema all over his body, which was particularly severe on the extremities, both upper and lower. In one of the arms there was a suppurative dermatitis with an abscess, which had to be opened. He had been treated according to the books. He had gotten a little too much mercury, and was salivated when I saw him. This man rapidly improved under salicylate of quinia and hydriodic acid internally, and a very simple salve externally, which I have been in the habit of using for years, made up as follows:

Oleum cadini,	30 m ;
Zinci oxid,	½ dr ;
Bismuth subnit.,	½ dr ;
Unguentum aq. rosæ,	1 oz.

I remember another very obstinate case of eczema in the treatment of which almost every thing had been tried. I finally got the surface so that it looked like a piece of raw beef, and was beginning to think that it was going to resist every form of treatment. At last I prescribed carron oil to be applied to the red, raw surface, and the patient made a good recovery. I hardly ever see a case of eczema now that does not speedily yield to some of the simple forms of treatment.

It seems to me that the pathology of eczema is considerably mixed. We probably have too many "authorities" on eczema, and there are too many things called eczema. Like tetter, the term is applied to many pathologically different affections. The definition of eczema is a non-suppurative inflammation of the skin; yet now and then we do find suppuration, at least in the subcutaneous tissue if we do not have it in the skin. Of course "pustular eczema" would spoil the above definition.

Dr. Cartledge: I believe some one has said that the best evidence that a disease is difficult to cure is in the number of remedies suggested for it. If that rule holds good in eczema, it is certainly a very difficult thing to cure, as I think there are more remedies suggested for it than any thing else. My observations in eczema have not been very favorable. It seems to yield to treatment for a little while, but the patients are very liable to have a recurrence of the trouble.

To digress a little from the purpose of the paper, which dealt with the treatment of eczema of the lower extremities, it seems to me that one of the most interesting features is the pathology. I am aware that dermatologists are divided as regards the pathology of eczema, but in reviewing the subject I have noticed that there has been a gradual change in the number of those who are inclined to look upon the disease as a germ infection.

As to treatment, I want to go on record as saying that I have one little prescription that has given better results than any thing else or every thing else recommended; that is, boric acid and lanolin, about one dram to the ounce. In those cases characterized by great oozing or weeping, especially those of the lower extremities, it becomes necessary to alternate the treatment. One day I use boric acid and lanolin, the next day a drying powder.

From a surgical standpoint, Dr. Marvin calls attention to one point that must be taken into consideration; that is, when we so commonly find the so-called eczema associated with a diseased condition of the veins, a varicose condition of the veins of the lower extremities. It is doubtful, however, whether this should be classed as an eczema.

Dr. W. O. Roberts: I have had a number of cases of eczema of the lower extremities, and my treatment has been simply to protect the raw surface with a piece of rubber tissue and then put over that a dry bandage, and over that a flannel one, the rubber tissue extending simply as far as the surface is raw and painful. The rubber bandage that Dr. Marvin suggests I have found always aggravates the trouble.

Dr. J. E. Hays: As to the strength of Lassar's paste or the proportion of salicylic acid in this paste, I believe ten grains to the ounce sufficiently strong to be applied to the variety of eczema I mentioned in the paper—that affecting the lower extremities. A larger amount than that would cause intense pain and would not be tolerated by the patient.

I believe one gentleman stated that he was not very much pleased with the results of salicylic acid in the treatment of eczema. I have seen some cases in which it did not prove efficient, but others were very much benefited by its use. I have used ammoniated mercury much oftener than I have salicylic acid. Of course a vehicle must be used, and I know of nothing better than Lassar's paste. The strength of ammoniated mercury I have used was fifteen or twenty grains to the ounce of paste. Neither case of eczema rubrum mentioned by me

would have tolerated the rubber bandage. No bandage of any description could be employed, as the least pressure gave rise to such pain that it had to be discontinued. I did not give any assurance in either of the two cases that there would not be a return of the trouble. I believe that a permanent cure will result in the third case. The man has adopted the use of an elastic stocking, and is able to attend to his business with very little discomfort. It is my intention to have him wear the elastic stocking for some months.

I would state that salicylic acid is probably one of the best remedies we can use when the eczema attacks the palms of the hands, as in the case referred to by Dr. Bailey. In that locality we can use a dram to the ounce, or even greater strength, with good results. My experience with drying powders in eczema of the lower extremities has been rather unfavorable. I find that powder coming in contact with the oozing surface very quickly becomes lumpy or forms a crust. In either case it proves irritating to the patch and tends to perpetuate it. I have used other remedies, such as resorcin, ichthyol, and several others, but have been better pleased with the use of salicylic acid and ammoniated mercury in a paste similar to that recommended by Lassar. Resorcin has been very highly recommended. I used it recently in one case, but it failed to afford relief. It was a very severe case of so-called eczema seborrheicum regarded as parasitic in origin.

In using ammoniated mercury, I take fifteen to twenty grains to the ounce of some suitable vehicle to make an ointment. After the leg has become sufficiently healed so as to allow slight pressure, it has been my rule to cover the paste with a fine quality of oiled silk, and then apply a flannel roller bandage.

Dr. Roberts (Operation for Removal of Varicose Veins in Right Labia Majora): To-day I operated upon a lady, twenty-five years of age, the mother of two children. Three years ago she had typhoid fever, and while convalescing she had severe pain in the region of the right groin, which was soon followed by swelling of the leg, and after the subsidence of the swelling, and she had been up for some time, she noticed that the right labia majora began to swell, and it has steadily increased. She did not know what the nature of the trouble was. On examination I found a lot of varicose veins of the labia majora, one of them looking as though it was about to rupture. When standing up the mass would be apparently as large as a hen's egg; when lying

down it would diminish very much in size but not entirely disappear. For fears the veins, which were so large, might rupture, I advised their removal. To-day, assisted by Drs. Pearce and Beard, I removed them. Some of them you will observe are very large, and look as though they would soon have ruptured.

No. 2 (Trephining for Punctured Fracture of the Skull): About the 7th of this month I was called to the Farmers Hotel, at five o'clock in the morning, to see a case with Dr. Spangler. Upon arrival I found the patient, a man between thirty-five and forty years of age, in an unconscious condition; breathing stertorously, pupils contracted and insensible to light; eyeballs could be touched without producing winking. I was told that a short time (probably about an hour and a half) before I saw him he had had a row with a negro, and, while standing at the bar with his side to the negro, he (the negro) struck him with a penknife, knocking him down and rendering him partially unconscious. In the course of a half hour he became totally unconscious and rapidly went into the condition in which I found him. The doctor had stitched up a little wound in the scalp, about a half inch in length, which had bled very freely. He had been given some morphine. The pulse was 140 to the minute, perfectly regular. He was lying straight. There were convulsive movements of his hands and feet. He had passed urine involuntarily. Under chloroform he became quiet, and I then enlarged the wound in the scalp to examine the condition of the skull. I found a punctured wound of the skull one eighth of an inch in diameter. We then decided to remove a button of bone, with the expectation of finding the inner table splintered and possibly a considerable amount of blood; but to our surprise the knife had gone straight through the skull without splintering either the external or internal table. A branch of the meningeal artery had been cut and was still bleeding. The amount of blood in the skull was three or four table-spoonfuls, which was removed. There was no improvement in the general condition of the patient, and he died in the course of six or eight hours after the operation. Unfortunately no *post-mortem* was held; consequently I am unable to state just what the condition was inside the skull which caused death.

I report the case simply from the fact that the knife-blade went clear through the skull (parietal bone) without splintering the bone at all.

No. 3 (Amputation of Penis for Epithelioma): The patient from whom this specimen (penis) was removed does not know his exact age,

but from his general appearance I should take him to be about thirty-eight—a negro man who gives the history of having had venereal warts, as he calls them, for the last ten years, which have been once or twice removed. I amputated his penis at the City Hospital to-day. The organ, as you see, resembles a very large cauliflower, and it is undoubtedly an epithelioma. All the glands in both groins were removed. Very few of them, however, were enlarged.

DISCUSSION.

Dr. Rodman: I was very much interested in the cases reported by Dr. Roberts, especially the second one, where there was no depressed or splintered bone after knife-wound of the skull. I can not help calling to mind a very remarkable case that I saw several years ago where the same condition of things presented. Dr. Roberts afterward saw the case. During my service at the City Hospital I was telephoned for one Sunday morning about ten o'clock. Upon arrival I found a negro man thirty years of age, and saw on the table a large dirk about six or seven inches long and fully an inch and a half in width. The Internes told me that when the man was brought into the hospital the knife was found clear down to the hilt in the man's brain. It entered on the vertex, and a great deal of difficulty had been experienced in getting it out. It must have penetrated at least six inches, and after pulling on it for some time it was finally withdrawn. This man, strange to say, did not have a bad symptom for five days. The temperature never went above normal until the fifth day, when septic meningitis developed, and he died, I think, on the eighth day. There was no depression of the external table, and we thought at the time, after very careful examination with a probe, that there was no fracture of the internal table, and decided that the case was an inoperable one. The wound in the brain was drained by gauze. It was afterward learned (by *post-mortem*) that no bone had been driven into the brain at all.

I simply mention the case in connection with the one reported by Dr. Roberts, and think it is not unusual for a knife going through the skull to do so without splintering the internal table in the least.

The last specimen shown by Dr. Roberts is certainly a very interesting one. I take it that the growth is epitheliomatous in character, having its origin in the venereal warts subjected to irritation, etc., for so many years. It has every appearance of a malignant growth, and the enlarged glands in the groin would also indicate its malignant

nature. Malignant disease of the penis is not common in patients under thirty-five nor under forty-five, nine tenths of the cases occurring after the forty-fifth year. The reason I say this is almost certainly an epithelioma is the fact that it is practically the only form of malignant growth that you find on the penis. Other varieties of malignant growths are occasionally met with in this situation, but epitheliomata are certainly by far the most common. Primary sarcoma of the penis is practically unknown, the only case on record I am familiar with being in a mulatto man, forty-eight years of age, reported in Gross' work on Surgery. It occurred in a patient of Dr. W. G. Porter, of Philadelphia. I think Dr. Roberts pursued the proper plan in amputating the penis as far back as he could, and also in removing the enlarged glands at the same sitting.

Amputation of the penis, when done early in the course of malignant disease, usually gives quite as good a result as one could expect. When there are enlarged glands in the groin they, too, should be removed. I have seen excellent results in two cases from removing them at the same time the penis was amputated.

Reviews and Bibliography.

A Text-Book of Ophthalmology. By WILLIAM F. NORRIS, A. M., M. D., Professor of Ophthalmology in the University of Pennsylvania, etc., and CHARLES A. OLIVER, A. M., M. D., one of the Surgeons to the Wills Eye Hospital, etc. Illustrated with five colored plates and three hundred and fifty-seven wood-cuts. Philadelphia: Lea Brothers & Co. 1893.

In these days, when we have so many books on each and every subject, in writing a book it becomes necessary for one to fill in with a large amount of matter which is in fact but a compilation of that which we find in other works on the same subject. And again, there is a strong temptation to pad, and verbosity is a prominent characteristic of many books which, for the purpose for which they are written, should be as compact as possible, that the busy practitioner and student may find what they want without having to wade through page after page of irrelevant matter in order to find what might have been expressed with equal or greater force in a few words.

In criticising the book before us we are forced to say that it presents the above weakness in about as mild a degree as one could expect in a book which treats of a science which has been written on for years. The chap-

ters on Anatomy, Physiology, and Embryology are rather more exhaustive than they are in other standard works, and present perhaps a better collection of illustrations.

Under the head of Optics this book treats of Catoptrics and Dioptrics, and presents the principles of reflection and refraction to us in a clear manner, supplementing its statements and explanations with diagrams which convince us of the truth of these principles and laws in a way which is more agreeable to the average reader than the necessity of pondering through the perplexing formulæ of higher mathematics.

The chapters on Physiological Optics, Examination of the Eye, and Ophthalmoscopy are but old, old stories told in a different way.

Further on we find a very just statement of the merits of the ophthalmometer of Javal, but in the description of the manipulation of the instrument there is an error which may be typographical, the word horizontally being used where we should have vertically. Davis is quoted as saying in regard to finding the primary axis that "to get this position properly and systematically he places the long white pointer *horizontally*; if the lines are coincident the primary position has been obtained; if not, the tube is revolved from right to left for about 45° , and the same distance from left to right, thus causing the pointer to travel about 45° , or the requisite number of degrees above and below the horizontal meridian." He then goes on to say that having obtained this axis and approximated the wires, and turned the long pointer 90° , there is "astigmatism against the rule" if the untouched wires separate; "astigmatism with the rule" if they overlap. Now that is just opposite to the facts of the case, for if we start from or within 45° of the horizontal as a primary axis, and turning 90° find the wires separating, we have "astigmatism with the rule." It is when we start from or within 45° of the vertical that separation of the wires indicates "astigmatism against the rule." Again, there is the statement that the long pointer in every instance shows the axis of the convex cylinder, the short pointer the axis of the concave, whereas it is evident that in "astigmatism against the rule" the long pointer shows one thing, in "astigmatism with the rule" another.

The treatment of errors of refraction is handled in a manner which carries conviction with it, but we believe that in the majority of cases the ophthalmometer gives results which agree with those arrived at by the use of the test case, whereas the author says in his hands they usually fail to agree. And again, we believe that he recommends prisms in many cases in which the condition would be overcome or at least improved by a proper correction of the refractive error.

The treatment of the diseases of the eye is abreast of the times, and in consideration of the author's large experience his private views can not fail to carry weight with them. The descriptions of some of the principal operations are admirable. The index is very incomplete, exhibiting many instances of omissions of words and proper names which we would surely

expect to find in an index. From a literary standpoint the book should rank with the best.

In conclusion, the book, taken as a whole, is a valuable addition to the literature of the eye.

Outlines of Obstetrics: A Syllabus of Lectures delivered at the Long Island College Hospital. By CHARLES JEWETT, A. M., M. D. Edited by Harold F. Jewett, M. D. 264 pp. Price \$2. Philadelphia: W. B. Saunders. 1893.

The aim of this work, the author announces, is to help the student in securing a classified knowledge of the outlines of obstetrics, which he rightly concludes should be the first step in the pursuit of any branch of learning. In carrying out this task he seems to have made a judicious selection of the salient points in the science and art of his branch, and to have presented them in a very clear and attractive manner. The typography and binding have the attractive characters common to the productions of the enterprising publisher.

D. T. S.

A Manual of Diseases of the Nervous System. By W. R. GOWERS, M. D., F. R. C. P., F. R. S. Second edition, revised and enlarged. Vol. 2—Diseases of the Brain and Cranial Nerves, General and Functional Diseases of the Nervous System. With one hundred and eighty-two illustrations, including a large number of figures. 1069 pp. Price, \$4.50. Philadelphia: P. Blakiston, Son & Co. 1893.

After some delay the author sends forth the second volume, having thoroughly revised it and incorporated the chief results of the investigations made since the issue of the first edition. It is no injustice to other works on nervous diseases to say that this is indispensable to students of diseases of the nervous system. It is a true classic, and one of the landmarks in the march of medical science. There are many other works of high merit candidates for public favor, and many that the student will find helpful on various points, but for exhaustive study, for clear statement due to high order of scientific investigation, for logical reasoning, for charm of style, and indeed for every feature that commends a book, this seems entitled to rank with the foremost in any language on the nature and treatment of disease.

D. T. S.

A Practical Treatise on Diseases of the Skin, for the use of Students and Practitioners. Third edition, thoroughly revised. By JAMES NEVINS HYDE, M. D., Professor of Skin and Venereal Diseases, Rush Medical College, etc. 802 pp. Philadelphia: Lea Brothers & Co. 1893.

This work may in a measure be styled a pioneer, being as far as we know the first that has proceeded from the great city by the lakes, possessing in great fullness the claims of a high-class text-book. Through three editions the author has successively revised and greatly improved his work, until now the decision would be far from unanimous that should place it second to any other work on skin diseases from English-speaking countries. Dr. Hyde shows himself in love with his work, and to a judicious arrangement adds a clear, concise, and accurate description, while in the matter of

treatment he speaks as one who has the authority of carefully proved experience. It is to be hoped that other works like this will follow, and that Chicago, the marvelous leader in so many other departments of human endeavor, will soon, in medical literature, take the proud place to which its facilities entitle it.

D. T. S.

An Outline of the Embryology of the Eye, with Illustrations from Original Pen-drawings by the author. By WARD A. HOLDEN, A. M., M. D., Assistant Surgeon New York Ophthalmic and Aural Institute, etc. 67 pp. G. P. Putnam's Sons, New York. 1893.

This little work, the Cartwright prize essay for 1893, is the record of a study carried out in the New York Ophthalmic and Aural Institute at the suggestion of Prof. Knapp, and, besides a careful *resumé* of what has been previously taught, contains much original investigation on the part of the author.

D. T. S.

Asiatic Cholera: Its Genesis, Etiological Factors, Clinical History, Pathology and Treatment. By JOHN A. BENSON, Professor of Physiology, College of Physicians and Surgeons, etc., Chicago. 247 pp. Chicago: The J. Harrison White Co. 1893.

These lectures, the author informs us, were published on an invitation of the graduating class of 1893 of the school with which he is connected. While adding nothing of note either original or new to the knowledge already possessed of the disease, under the limitations acknowledged by the author, it is a decidedly creditable work.

D. T. S.

The Student's Dictionary of Medicine and the Allied Sciences, Comprising the Pronunciation, Derivation, and Full Explanation of Medical Terms, together with Much Collateral Descriptive Matter, Numerous Tables, etc. By ALEXANDER DUANE, M. D., Assistant Surgeon to the New York Ophthalmic and Aural Institute, Reviser of Medical Terms for Webster's International Dictionary. 650 pp. Philadelphia: Lea Brothers & Co. 1893.

A dictionary sufficiently full to contain all the words commonly met with in works on medicine and the allied sciences, which should give clearly the pronunciation of medical terms, which devotes no more space to each term than is required for its clear definition, and withal convenient in size for constant reference, has long been a desideratum. Such a desideratum has been triumphantly met in Duane's Medical Dictionary. The great majority of physicians busy with their work will need no other, while the patient student may meet his wants by adding to his library this one of the many encyclopedic works of which the medical press has of late been so prolific.

D. T. S.

Report of the Surgeon-General of the Army to the Secretary of War, for the Fiscal Year ending June 30, 1893. Washington: Government Printing Office. 1893.

For a public document this report is one of unusual medical as well as popular interest. Beside the light thrown on the hygienic conditions to which the scattered posts of the army are subjected, there is a report of

numerous experiments in regard to the nature of the wounds inflicted by the various forms of improved firearms now supplied to the different armies of the principal military powers. It could not be otherwise than that in this, as in all other respects, Surgeon-General Sternberg would justify his appointment.

D. T. S.

New Truths in Ophthalmology, as Developed by G. C. SAVAGE, M. D., Professor of Ophthalmology in the Medical Department of the University of Nashville and Vanderbilt University. Thirty-two illustrations. Published by the author.

Ninety pages of this little work, the author tells us, are devoted to setting forth new truths and the remainder to contributions to old studies. It will certainly be conceded generally that whoever contributes ninety pages of new truths to the science of ophthalmology has done a creditable share in adding to the world's stock of knowledge.

D. T. S.

NEW EDITION OF THE NATIONAL DISPENSATORY.—Physicians and pharmacists will be interested to learn the fact that the new edition of the National Dispensatory is almost ready for publication. Upon its first appearance fifteen years ago a very large edition was exhausted in six months. The characteristics which secured this immediate recognition were its authoritative accuracy, its completeness, and the convenience with which desired information could be found, owing to the exclusion of obsolete matter. These features have been carefully preserved in the successive editions, of which five have been demanded at brief intervals. The work contains the latest and ripest knowledge of that pharmaceutical savant, the late John M. Maisch, who had practically completed before his death the sections reserved for himself. He had confided the remainder of the pharmaceutical portion to Professor Charles Caspari, jr., who occupies the chair of Pharmacy at the Maryland College of Pharmacy in Baltimore. The therapeutical department has been brought thoroughly abreast of the time by Professor Alfred Stillé, M. D., who has included critical statements of the value of even the newest remedial agents. A most suggestive "Therapeutic Index" is provided, giving practical suggestions under the various diseases arranged in alphabetical order. This, together with the General Index, contains the vast total of 25,000 references. The National Dispensatory covers by authorization the new United States Pharmacopeia. Though the new edition of the Dispensatory contains at least 100 pages more than its predecessor, it will probably be maintained at the same low price, in view of the certainty of a large and growing demand. It contains many new tables, lists, and descriptions of new processes and tests, and will be a work of indispensable value to all who have to do with any of the medical sciences.

E. B. TREAT, publisher, New York, has in press for early publication the 1894 International Medical Annual, being the twelfth yearly issue of this eminently useful work. Since the first issue of this one-volume refer-

ence work, each year has witnessed marked improvements, and the prospectus of the forthcoming volume gives promise that it will surpass any of its predecessors. It will be the conjoint authorship of forty-one distinguished specialists, selected from the most eminent physicians and surgeons of America, England, and the Continent. It will contain complete reports of the progress of medical science in all parts of the world, together with a large number of original articles and reviews on subjects with which the authors' names are specially associated. In short, the design of the book is, while not neglecting the specialist, to bring the general practitioner into direct communication with those who are advancing the science of medicine, so he may be furnished with all that is worthy of preservation, as reliable aids in his daily work. Illustrations in black and colors will be consistently used wherever helpful in elucidating the text. Altogether it makes a most useful if not absolutely indispensable investment for the medical practitioner. While the book will be so much improved over previous issues, the price will remain the same as heretofore, \$2.75.

ANATOMY, DESCRIPTIVE AND SURGICAL.—By Henry Gray, F. R. S., Lecturer on Anatomy at St. George's Hospital, London. New American from the thirteenth enlarged and improved English edition. Edited by T. Pickering Pick, F. R. C. S., Examiner in Anatomy, Royal College of Surgeons of England. In one imperial octavo volume of one thousand and one hundred pages, with six hundred and thirty-five large engravings. Price with illustrations in colors: Cloth, \$7; leather, \$8. Price with illustrations in black: Cloth, \$6; leather, \$7. Philadelphia: Lea Brothers & Co. 1893.

A TEXT-BOOK OF PHYSIOLOGY, by Michael Foster, M. D., F. R. S., Professor in Physiology in the University of Cambridge, Fellow of Trinity College, Cambridge, England. New (fifth) American from the fifth English edition, thoroughly revised, with notes and additions. In one handsome octavo volume of one thousand and eighty-three pages, with three hundred and sixteen illustrations. Cloth, \$4.50; leather, \$5.50. Philadelphia: Lea Brothers & Co. 1893.

THE PHYSICIAN'S VISITING-LIST (Lindsay & Blakiston's) FOR 1894: For twenty-five, fifty, seventy-five, and one hundred patients per week, \$1, \$1.25, \$1.50, and \$2. For fifty and one hundred patients per day or week, \$2.50 and \$3. Also in perpetual and monthly editions. This list is not surpassed for completeness, compactness, and simplicity of arrangement.

MINOR SURGERY AND BANDAGING.—By Henry R. Wharton, M. D., Demonstrator of Surgery in the University of Pennsylvania. In one 12mo volume of five hundred and twenty-nine pages, with four hundred and sixteen engravings, many being photographic. Cloth, \$3. Philadelphia: Lea Brothers & Co. 1893.

Pediatrics.

Under the Charge of Henry E. Tuley, M. D.

LITHOLAPAXY FOR STONE IN THE BLADDER IN MALE CHILDREN.— Surgeon-Major G. W. P. Dennys reports his results in eighty-nine cases, not claiming to show marvelous results, but wishing to corroborate as far as possible what Keegan has for years been trying to prove, viz., litholapaxy is for the vast majority of calculi in boys by far the best operation, "provided that the surgeon has at hand an ample supply of perfectly reliable and suitable instruments, and that he has learned to use them with judgment and dexterity."

Of the 89 cases 8 were girls, and for statistical purposes these 8 cases should be disregarded. Of these 81 cases 3 died. The cures were extremely rapid and satisfactory in nearly all the cases. One was returned as relieved for the reason that after one stone had been crushed and removed it was found that there was still another in the bladder which had a fixed position on the right side and could not be grasped by the lithotrite, the parents of the child refusing to allow lateral lithotomy to be performed, and in one case the result is recorded as "unknown," because the child, though apparently cured of the stone, still had symptoms such as pain on micturition, etc.

The first death was due to convulsions caused by a piece of stone becoming impacted in the mouth of the bladder. The second death followed rupture of the bladder, the return current being obstructed by a piece of stone becoming fixed in the eye of the cannula which could not be dislodged by the stream of water from the aspirator. This accident occurred while trying to dislodge the fragment by a stylet. Celiotomy was refused. Keegan lays great stress on being provided with proper stylets for all cannulas one uses, and the author indorses every word he said on that subject. The third death was due to impaction of a fragment in the mouth of the bladder, with convulsions, notwithstanding the fact that lithotomy was subsequently performed.

Dr. Dennys calls attention to the invaluable aid to diagnosis of a stone in the bladder (Fryer), namely, the click heard against the eye of the cannula during the process of working the aspirator.

The following table gives a few interesting averages of the eighty-nine operations:

	BOYS.	GIRLS.
Average weight of stone,	168.51 grs.	213.37 gts.
Average stay in hospital after operation,	3.14 days.	2.10 days.
Average age of patient,	6.30 years.	4.37 years.
Average time occupied by operation,	28.40 min.	23.00 min.
Mortality,	3.70 per cent.	nil.

The largest stone weighed 2160 grains, and was removed through a No. 12 cannula. In three cases stones weighing 700 grains, 607 grains, and 580 grains respectively were removed through a No. 9 cannula.

The average age was 6.30 years. With regard to this the large size of the urethra is remarkable; in only four cases was it found necessary to use so small a cannula as a No. 6, in a comparatively few a No. 7, and in the large majority a No. 9 passed with ease, while in a few cases very much larger cannulas were passed. Incision of the meatus is avoided by gradual dilatation by graduated sounds. Dr. Dennys has found that with boys the meatus is not as a rule very much smaller than the remainder of the urethra, but that the narrowest part is at the root of the penis, opposite the bulb, most often seen in children who have suffered from stone for a long time.

The time of operation was short, an average of 28.40 minutes, but the author lays great stress on making a careful search for the last fragments, and quotes Keegan, who says that "five or ten minutes spent toward the close of the operation in searching for the last particles of *débris* will be well and profitably spent."

Chloroform was used as an anesthetic.

Dr. Dennys also reports seventy-eight cases of litholapaxy on adults, and compares his results with statistics of lithotomy and lithotripsy in England previous to 1880.—*London Lancet*.

SCARLET FEVER AND ENTERIC FEVER.—Dr. S. A. E. Griffiths reports (*Lancet*, London, No. 3665, November 25, 1893,) four cases in one family who developed enteric fever at the same time as or very shortly after they were affected with scarlet fever.

Case 1. A boy aged eleven years was found suffering from scarlet fever on June 26th. The fever for the first three days ran a fairly normal course, but the boy appeared to be rather more dull and restless than is usual in an ordinary case of scarlet fever. On the fourth day (June 30th) the temperature was 103° F., having raised only a degree or so from the first. Instead of the temperature falling, there was a tendency for it to rise. Pneumonia was suspected, but the chest showed nothing abnormal. At this time (the 30th) the tongue had gone through the stages usually seen in a well-marked case of scarlet fever, from being covered with a white fur to a dark-red glazed appearance. On July 1st the tongue was again coated with white fur, and in the next two days assumed the characteristic typhoid appearance. Diarrhea set in, with typhoid stools. July 3d desquamation had already commenced, and was very marked. Consultation confirmed the diagnosis. On July 6th sudamina appeared, more especially over the chest, abdomen, and thighs. The temperature continued to be rather high for the first fortnight, ranging between 102° and 104°. The enteric fever ran a fairly normal course. Spots appeared on the abdomen and lower part of the chest; the spleen was not markedly enlarged. From July 3d to the 10th the boy was very delirious, being with difficulty kept in. He suffered great pain in the head. Antipyrin was given, and he was sponged with cold water every hour, from which he derived great relief. Several relapses occurred. The house was so small that isolation was impossible.

Case 2. The sister of the above patient developed scarlet fever on July 15th. It ran a typical course. The glands of the neck were much enlarged, suppurated on the right side, and were incised, owing to difficulty in breathing. She developed enteric fever July 27th. This patient was in very poor condition, restlessness and delirium well marked. Antipyrin and large quantities of brandy were administered. The temperature varied between 102° and 105° F. Diarrhea was severe at times.

Case 3. Another sister, aged three, was reported suffering from scarlet fever on July 19th. She was much debilitated, and suffering from the effects of acute polio-myelitis in infancy. She was much prostrated from the scarlet fever, and developed enteric fever on July 30th. The temperature was 105° F. Cold sponging every hour and antipyrin. The child died on the next day.

Case 4. A third sister, aged seven, had scarlet fever on July 19th and enteric fever on August 1st. This patient had both the fevers mildly. Dr. G. remarks that "in the four cases the longest interval between the two fevers was thirteen days, and it is curious that in the last three cases the period was nearly the same, viz., eleven, twelve, and thirteen days. This would agree with the incubation period of ten to fifteen days."

It will be of interest to note that another member of the family was affected with scarlet fever only.

ACQUIRED SYPHILIS OF INFANCY (CHILDHOOD).—By Prof. Fournier (*La France Médicale*, 7, iv, '93; *Deutsche Med. Zeit.*, 5, x, '93). The writer calls attention to the frequency of acquired syphilis in children, though many physicians hold this to be very seldom, and try to seek the source thereof. Syphilis never occurs immediately after birth, even if the child is hours in passing the freshly infected canal, as it is protected by the vernix caseosa. Aside from this it could not occur, as if the mother is infected the child must have also been infected while *in utero*, so that when syphilis shows itself immediately after birth we have a hereditary and not an acquired syphilis.

The most frequent source of infection is the wet nurse, who may be syphilitic at the time of taking the child, or may become so afterward; and while nursing, the nurse may become infected by coitus, kissing, etc., but most often by nursing other syphilitic children, and these are most frequently children taken to nurse simply to prevent the drying of the milk. In early years of life infection may occur from kissing of mother, nurses, acquaintances, or other children. The sponges used in bath, and bed linen, etc., may under certain conditions be a source of infection. Often the carelessness of the physician is a cause, and above all else ritual circumcision must be borne in mind.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Christmas in Hospital; Ipecacuanha as an Hemostatic; Strange Cause of Death; Carbolic Acid as a Cause of Death; An Itinerant Cranium in Dispute; Football and Charity; The Compulsory Seclusion of Inebriates; Oxygen in Therapeutics; The Epileptic Colony; The Howard Medal; Boys' Eyesight.

In the various metropolitan hospitals Christmas was celebrated in a fitting manner, and the lot of the patients made as happy and comfortable as possible. During the week the nurses had been busy making festoons of colored paper, wreaths of imitation flowers, with which to decorate the walls of the different wards. In most cases the nurses and students, after the Christmas service had ended, sang and gave short recitations. As a rule, the hospitals were thrown open to visitors in the afternoon, and the patients were enabled to spend two hours with their friends. At the London Hospital a large stocking was hung at the foot of each child's cot, and in the morning all were found to be full of suitable gifts. In the afternoon one of the doctors, dressed up as Father Christmas, made the round of the institution, and distributed toys to each child, his advent and progress being hailed with great rejoicing, as was also a party of mummers. Two Christmas trees were also provided, as well as a Punch and Judy show and a barrel organ. In all probability Christmas Day of 1893 was the happiest most of the children had ever spent, for their homes in but too many cases are very wretched places. One little girl, who had been admitted with a broken leg and who was well enough to go out just before Christmas, said to the nurse, "I wish I could break my other leg so that I could stop in."

The apparatus of Dr. Ranvers for the illumination of the viscera has recently been exhibited in London. It consists in an Edison lamp fixed to the extremity of a probe and inclosed in a glass globe filled with water. When the stomach is void of food the patient is made to drink some water, and the apparatus is then introduced, which enables the whole viscera to be seen by transparency and enables the operator to ascertain the state of the organ.

From India it is reported that ipecacuanha powders taken as a bolus before food, at the dose of twenty grains, if practicable early in the morning, supersedes all hemostatics for hemorrhage from bleeding surfaces, epistaxis, hemoptysis, or uterine hemorrhage. It has been found that on an empty stomach no laudanum or sinapisms are necessary to avert emesis. The recumbent position must be enforced.

An inquest was lately held at Guy's Hospital on the body of an infant ten months old, which had died from swallowing medicine corks. The assistant house surgeon, who made the *post-mortem* examination, found two corks, three quarters of an inch long, in the stomach, and another, half an inch long, in the esophagus.

Mr. Macdonald asked the Secretary of the Local Government Board whether he was aware that since February, 1892, to November, 1893, there had been 230 deaths due to the taking of carbolic acid, 174 of which were suicidal and 56 accidental; whether the Government would place carbolic acid under the Pharmacy Act, so that there might be greater restrictions placed upon its sale in small quantities; whether he would instruct coroners, in certifying the cause of suicides, to certify the name of the poison which caused the death, and whether he would order a return of the number of deaths caused by carbolic acid during the last five years to be given. The Secretary said he had no information as to the number of deaths due to the taking of carbolic acid, and that the Local Government Board had no jurisdiction with regard to the articles which were deemed poisons for the purpose of the Pharmacy Act of 1868. Additions to the articles specified in the schedule could from time to time be made by resolution of the Pharmaceutical Society with the approval of the Privy Council, and the Board would bring the matter under the attention of that Society.

In 1840 some workmen, digging a vault in St. Peter Mancroft Church at Norwich, broke into a coffin which proved to be that of Sir Thomas Browne, the famous Norwich physician and author, whose residence during life was demolished to make room for new buildings. The coffin and its contents were ordered to be reinterred, but the sexton seems to have taken possession of the skull, which Dr. Lubbock purchased, and in 1847 it was handed over to the museum of the Norfolk and Norwich Hospital. The present Vicar of St. Peter's, hearing of this circumstance, has called a vestry meeting, at which it was decided to ask the hospital authorities to hand over the skull, which application was refused. Strong ideas are entertained about the matter, as it appears that the skull of this eminent man is shown in company with those of executed criminals. The Vicar has expressed his intention of consulting a judge with reference to the matter.

Hospital Saturday is promised another auxiliary in the near future, football players having taken up the idea of contributing their services in aid of the fund. It is suggested that all the clubs of the metropolis should play matches on a given Saturday, the proceeds to be handed to the charity, and the Lord Mayor has called a meeting in furtherance of the project.

At a joint meeting of the British Medical Association Inebriates Legislation Committee, the Society for the Study of Inebriety, and the Homes for Inebriates Association, resolutions were agreed to thanking the Home Secretary for his promise to bring in a bill on the lines suggested by the Departmental Committee on Inebriates, indorsing every possible safeguard against the abuse of the power to seclude the inebriate, accepting the definition of "habitual drunkard" as defined in the Act of 1879; suggesting

the conversion of disused prisons or workhouses for criminal inebriates; recommending a procedure in seclusion of inebriates similar to existing procedure with lunatics, but with a separate Board of Commissioners in inebriety and in retreats apart from lunatics, calling for official inspection of all homes for inebriates, and forbidding any one to carry on such a home without a license, and promising the support of professional and general public opinion to the Home Secretary's Bill.

Dr. G. N. Pitt, at the Hunterian Society, spoke highly of oxygen as a therapeutic agent in various cases of pneumothorax with dyspnea and marked lividity, the inhalations of oxygen being followed with marked relief of the dyspnea. Dr. Pitt had also found the gas beneficial in a case of pneumonia where the lividity was great. On the other hand, oxygen was inefficient in a case of chronic Bright's disease and albuminuric retinitis, and in several other cases of uremic coma. He recommends oxygen in convalescence from severe illness in syncope, in laryngeal diphtheria, and considers it of great service during operations upon the air-passages where dyspnea is experienced.

The National Society for the Employment of Epileptics have purchased a farm for the proposed industrial colony, comprising one hundred and thirty-five acres, near London. The present funds will only admit the employment of about a score of patients, but an appeal for support has been signed by several influential personages, so it is hoped that before long some hundreds of sufferers will be located upon the farm.

The Howard Medal has been gained by Dr. H. R. Jones, of Liverpool, his paper being on the perils and protection of infant life. Dr. Jones proves that the causes of excessive infant mortality are (1) congenital conditions, (2) insanitary conditions, (3) neglect due to poverty, ignorance, or industrial employment of women, and (4) willful neglect and crime. With regard to death from suffocation in bed, twenty-eight per cent of such cases occurred on Saturday night, on which night thirty-five per cent of apprehensions for drunkenness took place; thus, this cause of infantile mortality is proved to bear a definite relation to intemperance. Contrary to the popular belief the author does not discover in any large number of cases that child insurance is answerable for willful neglect. As to the prevention of excessive mortality it will depend upon improvement of general education and an increased sense of parental responsibility. Greater restriction must be placed on the sale of opiates, and particular attention should be given to the proper feeding of infants.

Mr. Critchett, speaking recently, said that there should be a certain relation between the strength of the eye in children and the duration of work, and the necessity for allowing frequent short intervals of rest. Mr. Critchett considered that the subject was a national one, as he had just come across three cases of boys who had been rejected by the naval authorities for defective vision, in which rest had caused the sight to become normal, the spasm having passed off.

Diseases of the Chest.

Under the Charge of Ewing Marshall, M. D.

ETIOLOGY OF PERICARDITIS.—Rheumatism is the chief cause of pericarditis. Syphilis, tuberculosis, and malignant disease of the pericardium produce it in a very small percentage of cases. Chorea has been credited with producing it, but in an unscientific manner. The cause of most cases of chorea is rheumatism, and if the cases of pericarditis credited to chorea are studied we would find that the pericarditis and the chorea are equally dependent on the same cause, rheumatism. The same that has been said of chorea will apply to cases supposed to be secondary pneumonia or pleurisy. Double pneumonia or double pleurisy complicated by pericarditis, if carefully investigated, will give a rheumatic history. Granular kidney has been supposed to have a causative effect with pericarditis, but Sir William Roberts in four hundred and six necropsies of chronic Bright's disease found pericarditis only thirty times, or only about seven per cent.

ETIOLOGY OF BRONCHITIS.—Marfan and Claisse (Boston Medical and Surgical Journal) place bronchitis among the germ diseases. They claim that by the sudden chilling of the cutaneous surface, and especially when the body has been overheated and is perspiring, the blood is chilled and carried to the internal organs, causing such changes that the microbes which commonly infest the upper air-passages and bronchi find a favorable condition for their multiplication and pathological operations. Under ordinary conditions the leucocytes are able to control the invading hosts, but the congestion (plus something else as yet not understood) produced by the sudden chilling of the surface places the organism in a state of lessened resistance, and the enemy enters and possesses the country for a period varying from two to five weeks.

FOR bold, broad statements among the early medical writers of this century, one finds great benefit from Latham. As an example we quote the following which appears in advice about *taking a case*: "If locomotion be hindered, we look well to the brain and spinal marrow; if there be the livid lip and dusky skin, we scrutinize particularly the condition of the heart and lungs; if the whole body or some of its parts be attenuated, we examine well the organs of nutrition."

TREATMENT OF TUBERCULOSIS BY INJECTIONS OF CHLORIDE OF ZINC.—A. Sakaroff (Universal Medical Journal) reports the results of the treatment of tuberculosis by injections of a solution of chloride of zinc according to the method of Launelongue, as practiced at the surgical clinic of Professor Sklifossovsky, in Moscow. Nine cases were experimented upon with the

following results: Four cases with no improvement; four cases, result uncertain; one case, benefit claimed. Allowing for improvement due to proper hygiene, dietetics, etc., that naturally would surround patients being experimented upon, we would infer that these cases make the zinc treatment appear as a failure.

PERCUSSION (Philadelphia Polyclinic).—Dr. Mays' paper, "The Proper Method of Percussing the Chest," reads like he had just copied it out of one of the standard works on physical diagnosis. It has the same good points found in Dr. Loomis' Physical Diagnosis, and likewise its shortcomings.

Most of the little mistakes found in the first edition of Dr. Loomis' work are conscientiously repeated in the subsequent editions.

Dr. Mays says, "Deliver your blows gently," etc. We commend the doctor's desire of inculcating gentleness into his students, but the force of a blow used in percussion must vary with the depth of the tissue desired to be interrogated.

We will watch for his subsequent papers and gladly commend originality and practical points when found in them.

MYOIDEMA BECOMING UNFASHIONABLE.—Myoidema or muscle tremor, first described by Stokes in 1830, and designated by Lawson Tait in 1871 as myoidema, for many years played a strong rôle as a prognostic of phthisis. Now, especially through the efforts of Dr. E. G. Janeway, its pathognomonic property is gone, since it is found in other diseases than phthisis, and is commonly absent in that trouble. Dr. Janeway holds that it is purely muscular and occurs in various muscles all over the body. It is the result of an atonic condition, and may appear at a certain period in any wasting trouble.

AN attenuated heart muscle is ruptured by such slight exertion that it often is not understood, and the death is recorded as due to "heart failure." Two cases recently reported (London Lancet) show what small effort is often the ultimate cause in producing rupture. (1) A laborer, forty-three years old, returning from work, while crossing a raised bridge was seen to stagger, and was saved from falling by a fellow workman, who laid him down and supported his head until he died. (2) A sailor, assisting in arranging a net on a steam trawler, suddenly called out, "Oh! skipper!" and fell dead.

INTERSCAPULAR AND SUPERIOR AXILLARY SPACES.—Examine critically in every suspected lung trouble the interscapular and superior axillary spaces. Formerly the apex for phthisis and the base for pneumonia amounted to an axiom in physical examination, but in a certain percentage of incipient tuberculosis you will find the signs first in the interscapular

regions. Likewise in a certain number of low and indefinite forms of pneumonia you will find the initial area of consolidation, as evidenced by bronchial breathing, only in the axilla.

CARDIAC DILATATION.—Cardiac dilatation is always due to one or both of two causes, first, obstruction; second, muscular weakness.

The heart muscle is affected to a greater degree than the skeletal muscles in all wasting diseases, for it equally suffers from diminished nutrition, and then it has to continue its work. For the same reason in convalescence a weakened heart muscle more slowly and less certainly regains its former condition.

PHYSICAL DIAGNOSIS is attracting more attention from medical colleges than ever before. In the last issue of "The Post-Graduate," of New York, they lay claim to the improvement in the character and thoroughness of the life insurance examinations in late years on the ground that post-graduate schools make physical diagnosis one of the prominent features in their course of instruction.

How easy it is to mistake rapid miliary tuberculosis for typhoid fever. If *post-mortems* were more frequently made, many of these cases would disprove the diagnosis made during life. Generally the fever is more persistent, and will throw light on the case if carefully watched. Likewise there will be an absence of rose-colored spots in tuberculosis.

RALES.—Under this title appears some very good reading in the Kansas Medical Journal. Exceptions taken to the common explanations given of the crepitant r le strike one as being practical. The suggestion that a change in the resiliency and thickening of these vesical walls is a more satisfactory explanation than those generally accepted.

TUBERCULIN.—The only valuable use so far discovered for Koch's tuberculin (and that is doubtful) is as a diagnostic agent.

It may be satisfactory to project with lower animals with so powerful and uncertain a substance, but it is questionable practice to use it on human beings.

It is generally remarked that while the more serious forms of pulmonary troubles are not so conspicuous in grip patients this season, yet that the upper air-passages and the tonsils are as a rule involved.

Abstracts and Selections.

THE OMENTUM.—The American Journal of Obstetrics for December contains a paper read before the Pan-American Congress by Dr. James F. W. Ross, of Toronto, on "The Omentum and the Rôle it Plays in Operative Work upon the Abdomen." It is strange that an organ so important to the surgeon should be so little studied and its function so little understood. It may be that its long-suffering nature, permitting itself to be lacerated and imposed upon in so many ways by the hands of the operator, has led to its neglect, except so far as the danger of hemorrhage is concerned. The vessels once tied and the lacerated portions removed, the surgeon thinks no more of it. Indeed, in the majority of text-books it is passed over with the meager statement that its probable function is to protect the viscera and facilitate the movements of the coils of intestine.

That it must have some other use, the immense lymphatic and blood-supply would seem to indicate. The membrane also reaches its highest point of development in the mammalian group, though it is interesting to note that it is only slightly developed in the whale. As Dr. Ross points out, if it had been simply intended for the preservation of heat, one would expect to find a full development among the cetaceans as well as the other members of the family.

Tait, as quoted by Ross, says that in some patients suffering from dropsy due to peritoneal papilloma the effusion may be made to come and go as the patient is allowed to move about or is confined to bed. The interesting part of his observation is that in those cases in which the effusion can not be so influenced the omentum will be found to be more or less involved. Dr. Ross adds the account of an interesting case in which he removed the omentum about six inches below its attachment to the stomach. Some time after the operation the patient developed pain in the abdomen and a cystic collection in the remains of the omentum, which was tapped. The tapping was followed by suppuration in the cyst, which finally discharged, and the patient recovered. These observations would rather indicate that in some manner the omentum regulates the amount of fluid in the peritoneal cavity.

An important function of the omentum, and which must be apparent to every one who has opened the abdomen of a patient suffering from suppurative disease, is its attachment to the viscera in order to limit the purulent collection. As the author of the paper under consideration aptly remarks, "It is like a man of war ready to sail to any port in which there is impending trouble." Through its great lymphatic supply it must possess great power of absorption and neutralization of the pus products in addition to the merely mechanical action of a dam.

Several interesting questions are raised by Dr. Ross: Does the vast network of blood-vessels contained in this little-known membrane serve to hold the surplus blood during the process of digestion? Has it any special function in connection with the blood supply of the stomach, as would seem indicated by its attachment to that organ? These are important questions for the physiologist to solve, but the point most concerning the surgeon is the facility with which the immense quantity of serum thrown out after an abdominal operation is taken care of by means of the blood and lymphatic supply, and the lesson to be learned would appear to be the necessity for care lest it be injured and its power for good thereby impaired. It would seem important that it be preserved in every way possible, on account of its action as a safety valve.

Dr. Ross has opened up a field of inquiry which will be of much interest and advantage to the surgeon and physician alike.—*Jour. Am. Medical Association.*

BELLADONNA IN SOME BUCCAL AFFECTIONS.—Dr. Koebner (*La Semaine Médicale*, No. 66, 1893,) finds in certain affections of the mouth, as leucoplasia, mercurial stomatitis, syphilitic plaques and ulcerations that the effect of cauterization to combat the buccal lesions is often rendered vain by the excessive secretion of saliva, which washes away the eschar resulting from the action of the caustic. In order to diminish the salivary secretion in such cases he has had recourse to belladonna in the following formula:

Extract of belladonna (grs. v),	cgms. 30;
Cherry laurel water (3jss),	gms. 5;
Distilled water (3ijss),	gms. 10.

Ten to twenty drops two or three times a day.

If this should be found not active enough on account of a poor preparation, then employ atropine in half milligram ($\frac{1}{120}$ gr.) pills. One half hour before cauterization of the diseased tissue he administers twenty drops of this solution, repeating it at the end of two to three hours. If necessary, ten to fifteen drops may be given the next morning. In patients who secrete saliva profusely, and who are obliged to speak a great deal during the day, he cauterizes after the evening meal, administering thirty drops before and twenty after the operation. The following morning the patient should take twenty drops of the solution. Often it will be convenient or necessary to have the patient take from ten or fifteen to twenty drops *per diem* for some time. In case that there be a paralysis of accommodation, that is, the patient finds it difficult to read small type, it is advisable to interrupt treatment for one or two days. With the aid of belladonna patients who are afflicted with syphilitic ulcerations or plaques of the mouth or mercurial stomatitis cease to secrete saliva or experience pain on swallowing or mastication. In such cases, as well as in those affected with buccal leucoplasia, cauterization of the lesions at long intervals soon brings about healing.—*Cincinnati Lancet-Clinic.*

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LA GRIPPE IN RETROSPECTIVE.

The Western world is just now getting quit of its fourth epidemic of acute catarrhal fever, and, be the reason what it may, the doctors will agree that the high rate of mortality and serious sequelæ which marked the two first years have not characterized the two latter years of its prevalence. Of course several facts may be brought in to explain this, to wit: that the disease has assumed a milder type; that the weaker victims were weeded out, the stronger being left to fight it more successfully, etc.; but while these factors should be considered in the problem, we must believe that the better results are chiefly due to a better understanding of the disease on the part of the profession and a better therapy. The statement of some eminent French physicians, that they had found antipyrine useful in controlling the fever in the first stage of grip, led to the heralding of this drug by the newspapers as a specific in the disease, and it was taken in large quantities by the sufferers, sometimes with but often without the advice of physicians, and in many cases we doubt not was responsible for deleterious if not fatal results.

The American Practitioner and News commented adversely upon this practice at the time, the editors having been warned by cases wherein the extreme depression due to the disease had been made deeper by the drug. Later, antipyrine went off to swell the armamentarium of quackery, and phenacetine became the sheet anchor of the professional believer in chemical antipyretics. While this drug is doubtless

useful in the early stage of grip, we believe it is now seldom given by the wise therapist unless guarded by some accompanying vasomotor stimulant. The combination of whisky and quinine, which in the latest epidemic has been so much used and abused by the laity, is an improvement on the coal-tar drugs; but, except on the principle of *similia similibus curantur*, we fail to see how whisky can operate for good in the febrile stage of the disease.

Apropos of these considerations is the following mixture of ingenious theory and common sense from an article by Dr. Mortimer Granville (Medical Press and Circular). It should be carefully considered by every practitioner of medicine:

It was in 1848 that I first made the acquaintance of influenza. . . . Three facts which then came to my knowledge are of such *practical* value that I would not for any consideration be ignorant of them; and yet, so far as I know, they are not even mentioned in any text-book of medicine or in any special treatise on this disease. (1) The temperature . . . is a bogus one. It is not inflammatory, and a fatal mistake would be, and as a matter of fact *is*, made by so treating it. (2) There is *always*, though in a large proportion of cases overlooked, lobular, or broncho-pneumonia, that is active congestion of the lining membrane of the bronchial tubes extending to the air-cells at the outset of the disease. Very often the area of dullness, from engorgement, is so limited that it is not perceived, and it may change from place to place, in the same lung, or disappear in one lung and make its appearance in another in less than two hours. Important, almost pathognomonic, as the existence of this broncho-pneumonia is, it does not necessarily produce any special symptom drawing attention to the fact. This is why practitioners fail to observe it, and it explains the absurd description, "influenza complicated with pneumonia." Broncho-pneumonia is the very essence of the disease, and it would be far better to call it "epidemic lobular pneumonia," and thereby avoid a world of confusion and mischievous mistake. (3) *The treatment must be tonic throughout, and the diet especially nutritious and stimulating ab initio.*

These were the facts learned in 1848. The explanation has come with recent years and fuller knowledge.

The high temperature is bogus, because it is simply the result of a sudden transference of normally hot or only slightly super-heated blood from the deep vessels to those immediately under the skin and in the mucous membranes. This is the direct effect of poison on the nerve center, the poison of epidemic broncho-pneumonia acting specifically upon the vasomotor center. After the rush of the blood to the *surfaces*, external and internal, there is sometimes a rapid reversal of the state of matters and the blood falls in again upon the deeper vessels, and particularly those of the liver and kidney. When this occurs the temperature falls suddenly to a

subnormal point. These are not, however, the worst cases. If the effects of the poison on the vaso-motor center are sufficiently powerful to "stagger"—almost paralyze it—the result will be asthenic dilatation of branches of arteries supplying special lobules of the lung, with result of immediate hypostatic congestion. If this last long enough in any particular region a typical pneumonia may be fully developed; but it frequently happens that the particular nerve affected recovers and the muscular fibers of this artery act again, while another branch or filament supplying some other lot shows the paralyzing effect of the poison. The poison still acts on the center, but its influence passes from branch to branch of the vaso-motor nerve. All this time it is possible that the blood state, as distinguished from the blood-vessel state, may be natural. The mean temperature of the blood is, as we know, 39°C. , or 31.2°Reau. or 102.2 F. (a very common temperature early in influenza). So that the mere transfer of naturally hot blood to the surfaces accounts for a great part of the temperature observed. If the action of the poison on the vaso-motor center be prolonged nutrition is disturbed and a slight rise will rapidly bring the temperature to 104° or 105° . Indeed some physiologists place the mean of the blood heat at 40°C. , which would give 104°F. or 32°R. at the outset.

The point to note is that the great factor in the production of the high temperature in influenza is the bringing of normal blood to the surface, that is, within reach of the clinical thermometer, and that this phenomenon is a result of "shock" to the vaso-motor center, and needs to be treated by stimulants, not by depressants. In such a case the coal-tar derivatives, anti-pyrine, etc., are simply murderous agents, and I do not hesitate to affirm that cases of influenza treated by these drugs are placed in jeopardy by a blunder in art, and that the mortality of the disease has been in great part the effect of the treatment. The depressant came into action at the moment of collapse, and rendered recovery impossible.

I believe the best treatment to be by camphor and iodine combined, as follows:

R	Camphoræ,	. . . . .	gr. lx;
	Tincture iodi,	. . . . .	℥ lx;
	Mucilaginis acaciæ,	. . . . .	ʒiv;
	Glycerini,	. . . . .	ʒvj;
	Olei menthæ piperitæ,	. . . . .	℥ vj;
	Syrupi zingiberis, ad,	. . . . .	ʒiij.

Two teaspoonfuls being given every second or third hour until recovery happens, with clearing up of the lung congestion. Meanwhile, *during the stage commonly regarded as inflammatory*, be it observed a highly nutritious diet of meat-juice or very strong beef-tea with a sufficient allowance of champagne or brandy must be insisted upon. Rarely does the malady persist more than from three to five days, and when it subsides the patient is so little exhausted that the convalescence is extremely short. The chest should be daily, sometimes twice or three times in the twenty-four hours, searched for suddenly appearing or lingering patches of congested lung,

and hot stupes of turpentine or mustard poultices applied if delay occur in the recovery of the arterial tone.

I do not urge this or any other particular mode of carrying out the indications, but I maintain that these are to make a vigorous attempt to arouse and support the action of the vaso-motor center, and to avoid any thing and every thing caused by any chance depression.

MATHEWS' MEDICAL QUARTERLY.

"There's a new foot on the floor, my friends."

This journal was announced as being on the way in one of our recent numbers. The initial number contains one hundred and ninety pages of reading matter, most of which is original. A journal devoted exclusively to diseases of the stomach and intestines is unique and must come upon the profession as a surprise; but no doctor who surveys the beautiful and substantial proportions of the "new face at the door" will fail to own the surprise agreeable.

Notes and Queries.

HENRY W. COTTELL, in the Medical and Surgical Reporter, gives the following Practical Post-mortem Points:

Get all the anatomical knowledge you can out of every autopsy you make. It is therefore usually advisable, especially in the case of females, to perform a preliminary laparotomy. Many surgical operations can be practiced upon the body without disfigurement, such as Alexander's operation, oöphorectomy, removal of the ear ossicles and vermiform appendix, stretching of the sciatic nerve, symphysiotomy, etc.

Be sure you have a legal right to make the *post-mortem* before you begin. The nearest relative, or the one who is going to pay the expenses of the funeral, should give the consent in writing.

If you are so unfortunate as to cut yourself, wash the wound with running water for four or five minutes, and then dress antiseptically. Do not, out of bravado, go on with the *post-mortem* if there be any one else present who can complete it.

Tact will get you many autopsies. Curiosity of relatives and friends can often be worked upon to get permission for an autopsy.

In legal cases be sure to protect yourself in every possible way. The

jars (which should never have been used) containing the specimens should be sealed in the presence of a witness. In important cases here in Philadelphia the coroner has both of his physicians present at the autopsy, so that the testimony is stronger, and in case of absence of one of the physicians the other can go on the witness stand and the case not be postponed.

If you value your peace of mind, do not put yourself forward as an expert witness in medico-legal matters. Knowledge which you already have should be freely given to the court in criminal cases, but the court can not compel you to obtain expert knowledge without your consent.

In Germany the legal evidence of a *post-mortem* held by gas-light has been judged by the court, except under certain peculiar circumstances, to be void.

If two persons are lifting the body, the lightest weight is at the feet.

Chloroform, when placed on a towel and the head enveloped in the towel, will quickly dispose of *pediculi capitis*.

Many signs of inflammation, especially of the mucous membrane, disappear after death. Remember that red flannel often colors the skin red.

Wash your hands freely during an autopsy, so as not to allow the blood to dry on the skin.

Urine or aromatic spirits of ammonia will best take off the odor from your hands. This odor is usually gotten from opening the intestines.

Remember that a *post-mortem*, with the exception of brain and cord, can be made with a penknife.

THE PUBLIC RECOGNITION OF MEDICAL EMINENCE IN FRANCE.—In a memorial notice on Jean-Martin Charcot, published in the Johns Hopkins Hospital Bulletin for September, Professor Osler delicately alludes to the high public status of the physician in France as contrasted with other countries. He says: "A finely tempered individualism, prone though it be to excesses, is one of the glories of the French character. The *man* in France stands for more than in any other land. His worth and work are there more truly recognized, and there his relative position in the history of art, literature, or science is more justly gauged. Alone among the nations of the world, France honors duly the mighty dead of our profession. Not in the Pantheon only, but in statues, in the names of streets, and in the names of hospitals one is constantly reminded in Paris that such men as Bichat, Laennec, Pinel, Trousseau, Broca, Bernard, and others have honorably served their day and generation. The memory of Charcot is secure in such a land, and with us too it will rest safely, cherished beside that of Laennec and Trousseau."—*New York Medical Journal*.

THE GAME OF FOOT-BALL.—Hardly a day passes that there is not chronicled in the newspapers some severe accident to a foot-ball player, and in a large number of instances the result of injuries received is a fatal one. The popularity of the game among college students is so great that

we fear college professors are rather disinclined to interfere with what, we are sure, they must regard as an excess of physical exercise. But there can be no doubt that unless something is done to restrain the enthusiasm of the students, the game will become so unpopular that nothing but its complete abandonment will satisfy a public which is already beginning to ask why such practices are allowed. The game properly played is one which is well calculated to do good to those who engage in it, and it has deservedly obtained a place among the manly sports from time immemorial, and those are its true friends who see the dangers which attend it as now practiced, and call for its modification. The game has come to be, not a strife between teams, but a contest between individuals, and in the arrangement of the contestants selections are made of individuals to oppose individuals, until the game amounts to a series of fights, such as we hear of in the prize ring, only that in the modern game of foot-ball one can see at one time, and for the payment of a single admission fee, as many contests as there are opposing couples.—*Brooklyn Medical Journal, January.*

DECAY OF BOOKS.—M. Delisle, the principal librarian at the Bibliothèque Nationale in Paris, warns us that our modern literature is destined to perish. Of the two thousand and odd volumes published annually in France, not one, he thinks, will remain after a certain time. Cheap paper is a splendid thing in its way, but this is the price we must pay for it. Old-fashioned paper made from rags has stood the test of hundreds of years, as the many fine specimens of fifteenth century printing show, to say nothing of still earlier books in manuscript. Nowadays, however, paper is made of all sorts of material of a more or less perishable character. In particular, as M. Delisle points out, books printed on paper made from wood pulp soon begin to rot away. At first the pages are covered by yellow spots, and these are replaced in course of time by holes. Even so-called hand-made papers are often no more durable, being treated with chemicals that slowly destroy them.—*London Daily News.*

AMERICAN MEDICAL PUBLISHERS' ASSOCIATION.—The first annual meeting of this Association was held in the Grand Hotel, Cincinnati, on Monday, December 4, 1893, and steps were taken in the direction of active routine work. The by-laws and rules were revised and amended, while the name was modified in accordance with a demand from medical publishers of a general nature who desired to become members of the Association. The active co-operation of every medical publisher is earnestly solicited. Next meeting in Washington, D. C., September, 1894. Officers: President, Dr. Landon B. Edwards, Richmond, Virginia; Vice-President, Dr. J. C. Culbertson, Cincinnati, Ohio; Treasurer, J. MacDonald, jr., New York City. For application blanks and copies of the Articles of Association, address Charles Wood Fassett, Secretary, corner Sixth and Charles, St. Joseph, Mo.

Special Notices.

TREATMENT OF GONORRHEA.—I. Humphrey, M. D., Fairbury, Neb., says: The cure of gonorrhea in some cases is no trifling matter, as I long ago learned, not from books, but by experience. Such remedies as the doctor describes will often produce just such results, or did for me in my early practice. Any preparation of mercury, sulphate of zinc, nitrate of silver, acetate of lead, or, in fact, any and all astringents too strong, given in the early stage of gonorrhea, will be very likely to result in stricture or orchitis. Many cases thus treated come to me from other M. D's. It is far better to do nothing than to use such remedies, especially in the early stage. Never use any medicine the first two to four days after the discharge appears. Use only warm water frequently injected with a P. P. vulcanized syringe (use no glass syringe). Use the injection immediately after urinating, so as to avoid carrying the virus further up the canal. Give at the commencement a laxative of any bland cathartic, if necessary, to keep the bowels loose. After three or four days' use of warm water, use instead:

White Pinus Canadensis (Kennedy's),	1 ounce;
Morphia sulph.,	15 grains;
Aqua fow.,	5 ounces.

M. Sig: After passing urine to wash out the canal, inject a full P. P. syringe of the medicine, holding it in the penis three to four minutes. Use three times a day.

If more than one bottle is required, fill the bottle each time after the first is gone just the same, only use two ounces of the Pinus Canadensis; order plenty of nourishment, no intoxicating drinks, avoiding all excesses, and you will have no cases of orchitis, or stricture, and last but not least, make no failures, nor will even need to blister the penis.



IMPROVED EMPTY CAPSULE FOR THE RECTUM.—Messrs. H. Planten & Son, New York, the well-known Pioneer Capsules House of the United States, have recently placed on the market an Improved Empty Capsule for medication in the rectum, of which we show herewith a sketch. The ordinary cone-shaped suppository which has done duty so long is easily expelled, causing much aggravating annoyance and disappointment to both physicians and patients.

The shape of Planten's Improved Empty Rectum Capsules is in accordance with the suggestions made by Mr. Henry S. Wellcome in his lecture before the American Pharmaceutical Association at their annual meeting at Chicago, and will be found far superior to any other kind or style of Empty Gelatine Cocoa Butter and Gluten Suppositories now on the market.

We suggest that you send for detailed literature and samples to H. Planten & Son, New York.

HAVE you ever seen a bottle of McArthur's Chemically Pure Syrup Hypophosphites (Lime and Soda)? It is the most elegant preparation in appearance you ever saw. In all details, color of the syrup, which is constant, bottle, label, and whatever else betokens purity and elegance is expressed in that preparation. You all know the value of the hypophosphites of lime and soda. McArthur's Syrup Hypophosphites (Lime and Soda) Comp. is the standard preparation, and as a physician has said, "Whatever you can do with the hypophosphites of lime and soda you can do with this preparation, and that is a great deal."

THE results obtained from Bromidia have been excellent. It combines all advantages of other hypnotic preparations without their disadvantages. The fact that it produces no unpleasant sensation on awaking renders it specially valuable.—*Chicago Medical Standard*, November, 1893.

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• Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

THE PLACENTA.

BY F. BYRON ROBINSON, B. S., M. D.

Professor of Gynecology in Chicago Post-Graduate School.

The shape and method of placental attachment of different animals has been a subject of much interest to me during the examining of many animals. As a comparative study it is full of interest. It is well known to physicians that the human placenta is of a discoidal shape. It has an oval form, and the attached placenta is the thickest about its middle. The whole of the discoidal shape is uniformly applied in intimate contact with the uterine wall. When at labor it is expelled, the surface which adhered or "grew" to the uterine wall is somewhat uneven and rough, showing its dovetailing with the uterine surface. The part of the placenta in contact with the uterine wall is the fleshy portion through which is accomplished fetal circulation. The circular human placenta is generally attached toward the fundus of the uterus. Each human fetus has its own placenta. It has at term a diameter of about six inches and a thickness of about one and a half inches. The umbilical cord is generally inserted in the middle of the discoidal placenta. It has a chorion and amnion. It is very different in form and attachment among other animals. Take the pig as a good sample of a universal attached or diffuse placenta. The pig's uterus is bicornate. The uterus of one cavity in a pig is small. Gestation occurs in the uterine horns. The chorion of a pig is diffusely attached to the

uterine surface. It is a long, ample sac, and has at its end a peculiar construction. One can take hold of the chorionic membrane and peel it off from the uterine surface with ease. The surface is not perfectly even, but shows very slight elevations and depressions, which meet similar elevations and depressions on the uterine surface. I have frequently found dead pigs in the sow's uterus, and one dead pig can lie in the cornua between living ones. The ends of the elongated chorion have some relations with the ends of adjacent chorions. The amnion is very much smaller and tensely filled with a very clear fluid. In the slaughter-house one can easily see the heart of the fetus of a recently killed sow beat with a beautiful rhythm several hours after the mother's death. The amniotic membrane and fluid are so transparent that all is plainly seen. The allantois is a large sac lying between the chorion and the amnion. The chorion of a pig has an enormous surface attached to the uterine surface.

The mare's placenta is like the sow's. It is universal or diffuse in its uterine attachments.

The cow's placenta is entirely different in its attachments. It is a multiple placenta. The attached surface is not universally spread out over the entire surface of the chorion as in the pig and mare. The cow's placenta consists of a number of vascular bodies, having a pedicle, scattered over the surface of the chorion. Fifty or sixty of these may be counted in a uterus with a single fetus. In the cow one can easily see along the uterine horns three to four rows of whitish, round spots. These spots lie in the mucous membrane of the uterus and are really a permanent placental site. They are called cotyledons. They receive the corresponding points (placentæ) on the surface of the chorion. The cotyledons in a cow's uterus are the largest in the uterine cavity and the smallest at the tubal extremity of the horn. The only difference between the cow's and sheep's placenta is that the cotyledon of a cow's uterus is concave, while that of a sheep is elevated or disc-shaped. If one examines a cow's placenta at term (eight and a half to nine months) it will be easy to see the projections scattered over the chorionic surface. They look just like a mushroom, having a stalk-terminal expansion. They might easily be compared to a door-knob. The part of these chorionic elevations inserted into the uterine cotyledons may be an inch (more or less) across its terminal expansion. It appears and feels like a thick, fleshy mass. As one draws the chorionic elevation out of the cotyloid cavity of the uterus, it leaves an open,

non-collapsed cavity, which exactly fits the roughened surface of the uterine cotyledon. A very apt expression is used by some veterinarians in removing the cow's placenta, when they say "unbutton it." It does resemble the unbuttoning of a garment.

The sheep and goat placenta are the same as the cow's, except that the cotyledons are hollowed out in the center. I could frequently count four rows of cotyledons in the sheep's uterus, especially in lambs. Placentæ are the names given to the elevated portions of the chorion which fit and fill the cotyledons in the uterus. In cows I could easily find the long, expanded chorionic sac extending into both horns. If the fetus was being gestated in the right horn, the unattached portion of the chorionic sac could be found extending into the left horn as far as the fallopian tube. If the cow's placenta does not come away with the birth of the calf, it may remain weeks in position. I saw one case wherein a stone was tied to the externally hanging placenta in order to drag it out. In about a week to ten days the stone had drawn the placenta out, and the cow regained her health. However, she looked very ill, probably from infection.

The carnivora have totally different placenta from the cow. I have examined the placenta of the dog and cat. In them the placenta consists of a zone extending around the uterine horn. The zone or girdle passes around the middle of the chorionic sac. It is closely attached to the mucous membrane of the uterine horn. Each fetus has its own zonular placenta.

A curious feature which I noticed in examining the placenta and genitals of all animals is the amount of pigment found in them while in a state of activity. The pigment is yellow, brown, black, or green. Occasionally one finds large quantities on the endometrium and on the chorion. The source of pigment is supposed to be, first, the spleen, and second, the liver. But any organ having periodic function and fluxions of blood and highly supplied with sympathetic nerves may deposit pigment. Ever since Jastrowitsch severed the splenic plexus of nerves, and subsequently observed irregular pigmentation, the spleen has been watched as the great source of pigmentation. However, it is my opinion that pigmentation is the result of irritation of the abdominal brain or solar plexus.

As a result of the study of the method of attachment of the placenta one can learn how to detach it. We find that the human, pig, cow, and dog represent the various forms of placenta. These four ani-

mals are a type of form and attachment. We find that animals have either a single or multiple placenta. A cow, for example, has fifty or sixty placentaë for a single fetus, while a human has but one placenta for one fetus. It appears that the human placenta is the most fleshy of animals. The following table gives at a glance some views of the animal placentaë :

SINGLE PLACENTA.	{	Diffuse.	{ Sow.
			{ Mare.
	{	Local.	{ Dog, } circular.
			{ Cat, } circular.
			{ Cow (convex cotyledons).
			{ Sheep, } concave cotyledons.
			{ Goat, } concave cotyledons.
			{ Human (discoidal).

I can not urge too strongly the comparative study of animal life. Its anatomy, its functions, and its diseases are quite necessary to physicians. The veterinarian covers all the vast field of animal disease. No wonder he can do so little while attempting to accomplish so much. The human physician is beginning to see the value of the comparative study of animals. In the field of useful specialism to-day comparative study is almost a necessity. We live in an era of progress, but the great bounds of progress have depended on experimentation and comparative observation. A complete comprehension of the structure and function of any one animal or any one subject alone, by itself, is an impossibility, and besides it is unintelligible. Evolution travels along all lines of forces, animate or inanimate, and the threads of evolution must be picked up along the lines of development. No one can understand the peritoneum in man without its evolutionary development, its embryological changes, and all the progressive modifications of past ages in animal life. It is the same with the uterus and placenta; they must tell their own tale of evolution, as the dimples in the cheek of a babe point to the closing of ancient fissures.

I would also like to say to the young physician that the butcher-shop and slaughter-house are convenient in every town. Every young physician who will can do much valuable and very interesting study in these places. Much can be learned which can be applied in medical practice. The days of medical prestige without knowledge are over, for specialism has come to stay.

FOREIGN BODIES IN THE ESOPHAGUS.*

BY WARWICK M. COWGILL, PH. B., M. D.

The seriousness of any given case of lodgment of a foreign body in the esophagus depends upon the character, size, and location of the foreign body. The foreign body may be small, yet capable of doing great harm, as it may be sharp and of resisting substance capable of penetrating the wall of the esophagus and passing into and wounding vital parts in the neighborhood of the esophagus. Of the large bodies, a vast distinction must be made between those that are hard, rough, irregular, and indigestible, and those that may become softened by saliva and mucus of the esophagus, and digestible when pushed into the stomach.

Small bodies may be arrested at any portion of the esophagus. Large bodies are usually arrested at the upper, the junction of middle and lower third, or lower portion of the esophagus, since at these regions the gullet is slightly narrower than elsewhere. The symptoms will depend upon the character and size of the foreign body. A small, sharp body will produce a pricking sensation, while the larger bodies produce a sensation of sickening fullness, and if irregular and angular in shape a painful sticking pain, together with a feeling of fullness at the site of lodgment. The larger bodies may press upon the trachea and produce dyspnea or even suffocation.

Again, the larger foreign body may occlude the esophagus and cause great distress to the patient by preventing food or water passing into the stomach, or, again, the foreign body may be large, but so situated as not to interfere with the passage of liquid food and drink to the stomach. So the immediate danger from a large foreign body is inanition by occlusion of the esophagus, or suffocation from pressure upon the trachea. The remote danger, together with the above named, is ulceration through the walls of the esophagus, which may produce manifold serious complications, or the inflammation following the pressure from the foreign body may be followed by cicatricial changes resulting in stricture, or, as *post-mortems* have shown, a foreign body, if smooth, may become encysted in the wall of the esophagus and remain there for a long period without doing serious damage.

In this trouble, as all other troubles coming to the surgeon, it is very

*Read at the annual meeting of the Southwestern Kentucky Medical Association, May 10, 1891, at Paducah, Ky.

easy to make the diagnosis in some of the cases, while in other cases it is very difficult. If the foreign body be large, the easier it is usually to make out its character and location. If small, it is many times impossible to determine whether there is really a foreign body present, or whether the esophagus has simply been irritated by the passage of some rough morsel, and leaving behind the sensation to the patient that a foreign body remains in the gullet.

As to the method of diagnosis, exploration should be made, first, by the sound. If the foreign body be hard or of some size, it can usually be detected by this method. In the case of soft small bodies (by soft I mean those bodies that do not give a distinct sensation of touch to the sound, bits of green bone with the periosteum on, or flexible fish bones) the sound is not reliable.

In these latter cases the esophagus can be wiped up, so to speak, with the horse-hair probang, and if a foreign body be present it may be entangled in the probang and withdrawn. The ability to or not to pass liquids into the stomach is not conclusive one way or the other, since the non-ability to swallow liquids may be caused by spasmodic stricture, or a large foreign body may be so situated as not to occlude the lumen of the esophagus and allow liquids to pass by it readily.

The esophagoscope of McKenzie is an instrument seldom used, but one that in certain cases is invaluable. Manipulation of the walls of the esophagus may indicate the presence and location of a foreign body should it not be too low down. The stethoscope may also be called in to aid in the diagnosis by detecting the peculiar sound of water striking the foreign body when swallowed.

As to the methods of removal, these will vary infinitely, according to the character and location of the offending body, and open up a fertile field for surgical ingenuity. The common methods are by umbrella probang, forceps, both fixed and flexible, bougies, coin-catchers, etc., to an almost infinite variety of ingenious methods and devices that have been devised to meet special cases too numerous to mention here.

As to emesis, while this method of forcing up the foreign body has often been used, and with success, if the foreign body is not wedged too tightly in the esophagus, yet it is not without its dangers, and should be used guardedly. If the foreign body be of a digestible substance, and can not be removed otherwise, artificial digestion presents itself as a rational method of attacking it. A recent case of this char-

acter was reported by Dr. Arch. Dixon, of this State, in which he succeeded in digesting the foreign body, a large morsel of meat, with papoid.

If the foreign body is firmly lodged in the cervical portion of the esophagus, and defies other and simpler methods of removal either upward or downward, esophagotomy suggests itself.

Indigestible foreign bodies lodged in the lower portion of the esophagus that can not be withdrawn upward should be pushed into the stomach, from which place they can be removed by gastrotomy. Late statistics of this procedure, made by Dr. Maurice Richardson, of Boston, tabulated from all cases reported, 33 in all, gives 26 recovered, 4 died, and the result in 3 cases unknown. Or the foreign body, having been pushed into the stomach, if its known size and shape should give reasonable hope for so happy a method of getting rid of it, may be allowed to remain in the stomach, expecting it to pass off by the alimentary canal, which has taken place with some very large bodies. A case in point was reported by Dr. W. L. Sharpless, of West Chester, Pa., in the *Medical News*, December 17, 1892, in which a plate for artificial teeth, with no teeth in it, however, measuring $1\frac{1}{2} \times 1\frac{1}{4} \times \frac{5}{8}$ inches, lodged at the cardiac orifice of the esophagus. He pushed it into the stomach. The patient was placed upon the potato treatment, and in forty-eight hours afterward passed the plate *per rectum*. The condition may arise wherein the foreign body, lodged in the lower portion of the gullet, can neither be drawn up nor pushed down into the stomach. In such a case the most feasible method is to do a gastrotomy and attack the foreign body through the cardiac opening of the esophagus. This procedure was recently successfully done by Dr. J. M. T. Finney, of Johns Hopkins Hospital. (*The Johns Hopkins Hospital Bulletin*, No. 26, October and November, 1892.) The patient, male, forty-nine years old, farmer, five days prior to the operation, was eating a half-ripe peach when he stumbled and fell. In his excitement he swallowed the stone, which had still some of the pulp on it. Prolonged but unsuccessful efforts had been made by a number of physicians at White Sulphur Springs, Va., to remove it, which resulted in great irritation of the esophagus. After coming into the hands of Dr. Finney several further attempts were made to draw the peach-stone upward, but all proved unsuccessful. Whereupon gastrotomy was done, the peach-stone drawn into the stomach and removed. This case, twelve days afterward, developed mediastinal abscess, but finally made a good recovery.

Dr. Finney reports with his case two others of similar procedure: The removal from the lower portion of the esophagus of a plate containing four artificial teeth by Dr. Maurice H. Richardson, of Boston, August 5, 1886; and that of a peach-stone by Dr. W. T. Bull, of New York. Of the three cases, two were complicated by peri-esophageal abscess. All recovered.

Of the clinical portion of my paper I have five cases of which I will make brief report.

CASE 1. Mr. E., aged about sixty. I was called out some twelve miles in the country to see him. I found his esophagus obstructed by a tough piece of beefsteak, mostly gristle, which occurred while bolting his breakfast thirty-six hours before. The foreign body was lodged in the upper portion of the esophagus. A very small part of it could be seen with the laryngoscopic mirror. The esophagus was much irritated, and in swelling had grasped the meat very firmly. The patient was much reduced in strength by the terrible anxiety and entire absence of food or a drop of water for thirty-six hours. After several futile attempts with the forceps, guided by the mirror, I succeeded in getting a firm hold on the foreign body and removed it. It was about one and a half inches square. The patient was given a little water and some warm milk and put to bed. In a few days he had recovered his usual health.

CASE 2. I was called in consultation by Dr. Murrell, of this city, to see a patient, male, in the Railroad Hospital, suffering with esophageal obstruction. The offending substance was underdone biscuit dough, which had been lodged in the lower portion of the esophagus for twenty-four hours. With a stiffened soft-rubber bougie the dough was pushed into the stomach.

CASE 3. This case was an exact counterpart of Case 2. Obstruction of the lower portion of the esophagus by underdone biscuit dough. The dough was pushed into the stomach as in Case 2.

In both these cases trouble had been experienced before by food lodging in the lower portion of the esophagus, but had been removed by large draughts of water. I think stoppage of the food was due to some constriction at the cardiac orifice in both cases.

CASE 4. I was called early one morning to see Mrs. L., of this city. I found her in great distress. She had gone to sleep the night before with a silver half-dollar in her mouth. When she woke up found she had swallowed it. With the flexible esophageal forceps I detected the

coin lodged about half way down the esophagus. After one or two attempts I succeeded in grasping it and removing it.

CASE 5. Eva C., aged three years, colored. A week before coming to me she had swallowed a pearl button, measuring sixty-two and a half millimeters in diameter and four millimeters thick. It lodged in the upper portion of the esophagus, four inches from the upper incisor. I could touch the upper rim of the button with my finger. The button was lying transversely with rim upward, so that the lumen of the gullet was not occluded. The child could take liquid food and water easily, and was in good condition. I felt confident that the button could be removed in a few minutes, so with the assistance of Dr. Juett, who administered chloroform for me, I introduced a gag between the teeth and passed forceps down, guided with my left index finger. After several unsuccessful attempts to get the forceps on the button we allowed the child to come from under the anesthetic. Four times, on as many successive days, repeated attempts were made to remove the firmly impacted button by means of forceps and hooked wire retractors and flexible forceps, but all to no avail. The situation began to look gloomy. What I needed for the case was a Grafé coin-catcher, but that was not at hand. So, as many of us do who are some distance from large instrument houses, and can not get at once what we want, I put on my thinking cap to devise an instrument suitable for the case. My eye fell on an Otis urethral bougie (No. 27) and it was at once suggested to me to make a "button-catcher" of it. With the aid of a vise and file I soon had the instrument (Fig. 1) perfected. The

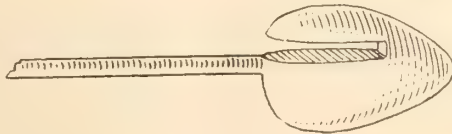


FIG. 1.

child was put upon the operating table the fifth time. No anesthetic was given. Drs. Juett, Stewart, Graves, and Lining assisting, the child was held with her head hanging backward over the edge of the table. The gag was introduced, and I passed the bougie, guided by my finger, behind and below the button; on withdrawing the bougie the slot engaged the button, and with a steady pull it was drawn up and out. The child returned home, some twenty-five miles in the country, that day, and was soon in her usual health.

ELECTRICITY IN THE TREATMENT OF GOITRE.*

BY J. L. HOWARD, M. D.

Demonstrator of Microscopical Histology and Assistant to the Chair of Clinical Diseases of the Nervous System, University of Louisville.

In presenting to the Society the subject of the treatment of goitre I wish to outline a recent method of applying electricity, with a report of cases so treated.

Around the Ohio Falls, especially among the hills across the river known as the Knobs, we find goitre mainly of the fibrous and cystic varieties by no means rare. This is in all probability due to the large amount of calcium salts in the water used for drinking purposes, while the low estate—physical, mental, and moral—of the inhabitants of the barren limestone hills of Southern Indiana at this point doubtless favors the disease. This character of goitre is seldom benefited by other means than the surgeon's knife.

The hypertrophic variety, however, whether acute or chronic, in young or old subjects, may be cured by means of the electrophoresis of iodine.

Simple hypertrophy of the thyroid gland is seen principally in females at the time of puberty, during and following pregnancy, and at the menopause. The cases which I shall report are taken from these types, the patients being free from all social, atmospheric, or telluric conditions, which might tend to produce the disease.

Iodine was discovered in 1815, and was first used by Corindet, of Paris, in 1819 in the treatment of bronchocele. It has proved to be a powerful remedy in thyroid swellings. Many remedies have been fashionable in this treatment, and at one time burnt sponge was much lauded, but was discarded upon the discovery that its curative powers were due to the iodine it contained. Painting the swelling with iodine does little else but discolor or blister the skin. The injection of iodine into the gland is dangerous, but by the use of the galvanic current in carrying the drug directly into the substance of the gland we have a treatment absolutely harmless, free from pain, theoretically scientific, and practically effectual.

[] It has been demonstrated by a simple test that iodine is actually driven through the tissues by an electric current. If the positive electrode of a galvanic battery saturated with an iodine solution is

*Read before the Louisville Medico-Chirurgical Society, December 8, 1893. For discussion see page 94.

placed on one part of the body, and the negative electrode containing starch is applied some distance away, the blue reaction of the iodine upon the starch is obtained so soon as the circuit is closed.

In the application of iodine by electrophoresis to hypertrophic goitre the anode consists of a cup-shaped electrode made of gutta percha,* such as I here present, and as used by Prof. H. A. Cottell at the University Clinic. In this cup is placed a small pledget of absorbent cotton moistened with a solution of common salt, and containing eight to ten drops of Churchill's tincture or a saturated solution of iodine in iodide of potassium. This is placed over the goitre and the cathode on the back of the neck. Carefully watching the milliamperemeter, we turn on the current and gradually increase the strength until the patient can taste the iodine. Ordinarily ten to twelve milliamperes are sufficient. It is necessary to cover but a small portion of the surface of the tumor in this procedure. The discoloration will be slight, owing to the use of a watery solution of iodine, and blistering will not result. Each application will require ten to fifteen minutes, as a rule, and should be repeated from two to three times a week or every day, as the case requires. Dr. Hunter McGuire, of Richmond, Va., in a paper read before the Southern Surgical and Gynecological Society, 1891, called attention to this method of treating goitre, and is, I believe, its inventor.

The following reports are taken from the record book of Dr. Cottell's clinic and from cases treated at my office :

CASE 1. Mrs. N., aged thirty-seven, the mother of six children, the youngest being three months old, was first seen in October, 1891. The thyroid swelling was scarcely noticeable, and had been first observed during her last pregnancy. Potassium iodide was administered internally, and inunctions of the red iodide of mercury were used over the goitre. After a few weeks' treatment, with slight improvement, she was lost sight of. During the following November the case was again seen. At this time the swelling had increased considerably, each lobe being about the size of a hen's egg, with the isthmus very large and causing irritability of the throat by pressure. Under the application of iodine, driven in by the galvanic current and applied regularly three times a week, the gland regained its normal size in four and a half months.

CASE 2. Mrs. S., aged twenty-two, consulted me on the 15th of last April for a goitre, about the size of a hen's egg, which had enlarged very rapidly. The patient was quite thin and the swelling caused con-

*This electrode was devised by Dr. Cottell in 1891.

siderable disfigurement. The patient had first noticed a swelling in the region of the thyroid gland about six weeks before her confinement, her child at this time being six weeks old. The electrophoresis of iodine twice a week brought about a favorable result.

CASE 3. July 7th, Mrs. C., aged thirty-six, the mother of eight children, developed an hypertrophy of the thyroid during her last pregnancy. It was first noticeable at about the third month, and increased very rapidly until the sixth month, when five applications of iodine by means of electrophoresis resulted in such marked improvement that the patient was allowed to discontinue treatment until after confinement.

CASE 4. On June 15, 1893, Nora F., aged fourteen years, came to the University Clinic, giving the following history: Father and mother still living; one brother died of tuberculosis; previous to two months ago patient had enjoyed good health, when the thyroid enlargement had set in, and had rapidly increased till seen. The general appearance of the girl was good. She was rather large for her age and roundly developed. Although she had never menstruated she was not anemic. The enlargement was enormous and bilateral. The right lobe was the larger and reached out almost on a line with the chin. The neck at this time measured eighteen inches. Electrophoresis of iodine was applied three to four times a week till the 15th of September, when the measurement was fifteen and a half inches. At this time the patient went to school, and, as she lived across the river, has been able to attend the clinics not more than once a week since. At the present time the measurement of the neck is hardly fourteen inches. She began menstruating in October.

During the last eighteen months sixteen cases of goitre have been treated by electrophoresis at the University Clinic, with the following results:

Five cases under treatment at present time, all improving.

Four lost sight of.

Seven discharged cured.

LOUISVILLE.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, December 8, 1893, Dr. T. S. Bullock, Vice-President, in the chair.

Dr. W. L. Rodman (Strangulated Hernia; Herniotomy): Last Wednesday morning a week ago I was called to operate for strangulated inguinal hernia of right side in a man forty-five years of age. I found the patient vomiting, suffering intense pain, with a tumor as large as a child's head, very tense and evidently containing quite an amount of the intestine. An attempt at reduction under chloroform failed. A herniotomy was then performed; a large amount of intestines, both large and small, were found in the sac; the gut was very healthy, but distended with gas, consequently after relieving the constriction it was returned. After dissecting the sac from the surrounding tissues, to which it was very densely attached, especially to the upper part of the testicle and to the cord, it was cleared well up to the neck, and a ligature thrown around the sac. First satisfying myself there was nothing in it, and twisting it upon its axis, I turned the sac over to an assistant to hold and drew the ligature down as tightly as I could. I did not recognize the fact that any of the viscera or contents of the sac were embraced in the ligature at the time. I cut the sac high up and removed it. Examining the sac I saw at once that I had cut something else, and it was only a second before I was able to satisfy myself without any doubt that it was the appendix. I loosened the ligature as soon as possible, thinking I could grasp the appendix before it would escape me and get back into the abdominal cavity, but failed. At the same time I cut the appendix I also cut a small vessel which spurted very freely. I rapidly enlarged the incision, pulled down the gut, and had no trouble in finding and ligating the appendix. I learned then the appendix was adherent to the upper part of the neck of the sac. Evidently the cecum had been in the hernia and had been reduced from time to time, but the appendix had become agglutinated to the wall of the sac. The patient did very nicely, has not had a bad symptom, and is now out of danger.

I speak of the case simply to bring before the Fellows one of the accidents that may happen in herniotomy.

I have always been very careful in freeing the sac from the surrounding tissues, making sure that there were none of the viscera

* Stenographically reported by C. C. Mape.

embraced in the ligature, and was very much puzzled to know how I could possibly have cut the appendix until a further examination showed that it was adherent to the sac. I am satisfied that accidents of this character occur not infrequently in herniotomy and escape detection at the time.

DISCUSSION.

Dr. A. M. Cartledge: The case is extremely interesting from one point. It shows how easy it is for a loop of the intestine which is adherent to be caught in the ligature and damaged in this way.

Dr. Rodman (Removal of Retained Testicle): This is a small testicle which had been retained in the inguinal canal (right side) of a young man of twenty years of age. He suffered at times with pain and dyspeptic symptoms, lasting occasionally for a month or two. The testicle would become inflamed and disable him for work. Last Sunday the operation was very easily and quickly performed, and the patient has never had an untoward symptom. You will see that the testicle is very small, weighing, I suppose, about three drams. This is the second or third case of retained testicle that I have operated upon in the last year.

The essay was read by Dr. J. L. Howard; subject, Treatment of Goitre by Electricity. [See page 90.]

DISCUSSION.

Dr. D. T. Smith: I do not think the paper should go without remarks, if only to emphasize the excellent results reported by Dr. Howard. We all remember the first introduction of this system of electrophoresis, some six or seven years ago, by a physician from Algeria, who had, as he believed, succeeded in conveying iodine through the system with this method. He visited the Academy of Sciences in Paris, and was permitted to exhibit this action of electricity with apparent success. The incident was very widely published as a wonderful discovery, and one that gave promise of great good. A subsequent most careful test, made in the laboratory of Prof. Dujardin-Beaumetz, and under his direction, resulted in complete failure. On account of the high authority of Dujardin-Beaumetz the failure was published as extensively as the apparent success had been, and nothing more was heard of electrophoresis for two or three years. It was taken up again at different times, but was not very widely believed in. I do not know

whether the tests have been gone through with carefully, but since it has come into vogue again after the exposure referred to it is presumable that a fair test has been made. Dr. Howard's results are remarkable. We know he has reported them just as he has seen them; and whether it is a succession of favorable cases and cases that might have gotten well anyway is a pertinent question, considering the slowness with which this treatment is adopted. From the quantity of iodine used it would seem that very little would be left in the tissues. The iodine is decomposed, and in seeking the opposite pole passes almost instantaneously through the tissues, and we may suppose that very little of it is left in the substance of the gland; not more than would be left by the old-fashioned method of absorption when iodide of mercury is put on a fresh surface. Possibly the action is more effective when electricity is used. Certainly, if the good results Dr. Howard has obtained should prove general, it would be one of the most important therapeutic discoveries of the present day.

Dr. J. B. Marvin: Several points in the paper are extremely interesting to me. First, the statement of the frequency of goitre in the locality mentioned. Second, the subdivision that the essayist makes. If I heard him correctly, he excludes from the paper those cases of goitre which are cystic or fibrous in character, or calcareous degeneration, and treats only of the softer, more compressible, elastic, and acute cases. Those cases are comparatively frequent, and always seemed to me to belong to a different category from the cases of genuine goitre that occur in Switzerland among the Cretins, and by no means infrequently in this country. Another point, the frequency with which the essayist's cases have occurred during pregnancy—all except one. Just there comes an interesting question, whether disappearance of the goitre was the result of treatment by iodine, or whether they were just such cases as would have recovered themselves? I have seen such cases in girls after puberty and in pregnancy. Soft, compressible, rather swollen, or full necks were regarded as marks of beauty. We often see them in pregnant women, and after pregnancy has elapsed and the patient has returned to her normal condition we hear nothing more about goitre.

As to the question of treatment: Taking it for granted that the cases reported have all gotten well, it is little short of remarkable. This manner of treatment is no new procedure; years ago I used electricity considerably. I remember Dr. Wilson had a case under treatment, and at my suggestion he used electricity quite freely; however,

with a different idea than Dr. Howard mentions, that is, we thought we could drive any quantity of potassium iodide into the tissues and decompose it, or, by putting it directly in contact with certain tissues, and decomposing it, that the iodine would be obtained in a nascent state, and probably be much more active than would be the case if it were driven through the tissues in a free state. I am a little skeptical about the value of this treatment. The quantity of iodine driven through the goitre is so small that I can hardly see how it could act.

I think there is a chance that some of us who are less expert than Dr. Howard may be misled by one statement he made, that the iodine in the goitre could be tasted by the patient. If galvanism be applied to the neck anywhere the patient will taste it. The patient is liable to mislead you. This subject is attracting more attention lately than ever before; not only that iodine may be carried into the tissues by electricity, but that other medicines may be introduced in that way. I certainly hope that the essayist will pursue his investigations further and inform us as to results.

Dr. Cartledge: Before Dr. Howard closes the discussion I will simply ask, Have not men claimed quite good results in the character of cases referred to from the use of galvanism alone?

Dr. J. L. Howard: No; that has long since been given up.

Dr. T. S. Bullock: Considerable attention has been drawn to this subject recently by the application of electro-therapeutics from a gynecic point of view. Massey, of Philadelphia, has written a very interesting monograph giving the status of electro-therapeutics and the results obtained by him. He seems to state positively that in fibromata of the uterus that are not cystic he has gotten results almost similar to those detailed by Dr. Howard in the treatment of goitre; also, in the various forms of menstrual disturbances, notably menorrhagia with consequent subinvolution, wherein the blood-vessels are greatly dilated, etc., he reports wonderful results; also, in the treatment of various inflammations, metritis, etc., and expresses the hope that this method of treatment has come to stay, and that they will make such very rapid progress in this department that the therapeutics of to-day will soon be left far behind. I believe it is a therapeutic agent of undoubted value.

Dr. Marvin: Bearing upon what Dr. Bullock has said, I think we are liable to get a misconception. Massey uses electricity in an entirely different way; he sends enormous currents through the affected parts that Dr. Howard could not use about the head.

Dr. Rodman: The treatment of goitre with iodine gives very satisfactory results, whether it is employed locally or otherwise. I remember one case, and Dr. Howard will also recall it, occurring in a young girl from New Albany; she came to the University Clinic five or six years ago with an enormous goitre, which disappeared very readily under biniodide of mercury ointment. I have seen excellent results from using iodine locally and internally.

I am satisfied that the medicinal treatment of goitre is the only treatment to be considered. I do not believe in surgical treatment, because we can not often hope to find one part of the gland affected in these troubles, and unless only one part of the gland is involved, surgery would be out of the question. Complete removal of the gland is invariably followed by myxedema. Partial thyroidectomy, on the contrary, gives satisfactory results. Experience in the last few years has proven this, especially the large number of cases operated upon by Kocher, of Berne.

Dr. Howard: In my mind there is no question as to the iodine passing through the tissues by means of electrophoresis. If the anode of a galvanic battery is saturated with iodine and applied to the surface, and the cathode moistened with starch be placed some distance away, the blue reaction of the iodine on the starch is obtained immediately after the current is closed.

I think none of the cases treated would have gotten well spontaneously. With three exceptions they were of long standing, and though of short duration the fourth case reported (N. F., aged fourteen years,) had the largest gland of any case treated.

The strength of the current by electrolysis could have no effect on the goitre, as rarely over five to ten milliamperes were used. I am aware that good results are reported due to electrolysis and not long ago I saw where faradism was used with benefit. As Dr. Marvin says, the galvanic current will excite the special senses, as when applied near the tongue it gives a distinctly metallic taste; but, on the other hand, in using iodine in the cup-shaped electrode, it is not till the current is reversed that the patient complains of the disagreeable taste of the drug.

Certainly more iodine can be introduced locally by this method than could be through the circulation. Cystic and calcareous goitres are not benefited by this procedure.

Dr. Marvin (No. 1. Diabetes; Death in Diabetic Coma): I saw a case recently which illustrates a point I emphasized several years ago at a meeting of this Society, that is, how often diabetes was overlooked, especially in young people—people who go about for quite a while complaining slightly of gastric or other symptoms, and then dying rather suddenly in coma. A young man came to me early in the year, a healthy, buxom-looking fellow apparently, with the statement that he had applied for increased insurance, and the doctor had told him that he had sugar in his urine. An examination revealed the fact that the urine was loaded with sugar, and yet there were absolutely no symptoms. I kept him under observation, regulated his diet, giving him phosphoric acid, etc. He left here during the summer, and I afterward heard he was worse. He came back here during the fall, and three weeks ago I was summoned one day and found him in bed, and he said there was a “hard spot” on his leg, which was found to be located over the gastrocnemius muscle. I told him that I thought he was going to have a phlegmon, to keep quiet in bed, and make some soothing applications. Three or four days afterward it was found to be a suppurating mass, and I called Dr. Rodman to see the case. It was decided an operation was necessary. Only a very small quantity of chloroform was administered, which was taken nicely, and Dr. Rodman emptied the phlegmon. The patient rallied, but the breathing seemed to be a little peculiar. That night Dr. Rodman came for me and we went together to visit the patient; the peculiarity about the respiration had not improved, and it was a question whether it was nervous breathing, or whether it was the beginning of the end; it proved to be the latter. The patient slept well that night under morphine, and the next day, thirty hours after the operation, he died in diabetic coma. That is the usual outcome of cases of this character in my experience, where the patient is under fifty years of age. I make this age the dividing line, the prognosis being much more favorable in patients over forty-five or fifty than in those under this age.

(No. 2. Tetanus.) A man, who was strong and healthy on Sunday afternoon, in walking out to his coal-house where some repairs were being made, having on at the time an old pair of shoes, the soles of which were partially worn through, stepped on a nail, which was forced into his foot. On the eighth day I was summoned by his physician, Dr. Woody, and the patient said that he felt very “stiff about the mouth.” The pulse was of good volume, and there was no hyperes-

thesia of the surface; intelligence perfectly clear, as it always is in these cases; simply this curious sensation about the mouth. He had been shot during the war in the right cheek, and had been taking one-third grain extract nux vomica at a dose several times per day. The question came up whether it was going to prove to be a case of tetanus, as we feared, or whether these rather full doses of nux vomica played any part in the trouble. The nux vomica was stopped immediately; he was put upon chloral and bromide and responded well to it. There was no increase in the symptoms until the sixth day, when the medicine was regurgitated, the pulse became quicker, and the following evening he died. There was almost complete paralysis of the respiratory centers. It is the only case of tetanus that I ever saw which had no convulsive movements save locking of the jaws. The jaws were firmly locked, and at times we could not get them apart; the last twelve hours we had to keep a stick in the mouth. There was no hyperesthesia of the surfaces, no opisthotonus, but there was a little stiffness post-nuchal a few hours before death. The whole poison seemed to spend itself in just those centers—the spinal accessory and respiratory.

DISCUSSION.

Dr. Rodman: I would like to ask Dr. Marvin, before he closes his remarks, what effect he thinks the chloroform and the shock of opening the abscess had in the first case he reports.

Dr. Marvin: I do not believe either the chloroform or the operation had any effect, and I would not hesitate to do the same thing again. The pulse and breathing were better under chloroform than before it was administered. The man was practically dying when the operation was performed. I do not suppose he was under chloroform more than five minutes.

Dr. Rodman: I am very much inclined to adopt the same view that Dr. Marvin has in regard to this case. While his condition seemed to be that of shock, I felt satisfied that it was due to nervousness, as he was a very nervous man. I never saw a more nervous, hysterical person. While I think it is not unlikely that the chloroform had something to do with precipitating this patient's death, still it is an open question, for in talking with two or three of his friends they told me that the man had been very drowsy for several days, that he was inclined to sleep nearly all day as well as all night. I think, taking these facts into consideration, that it is questionable, to say the least, whether chloroform

precipitated the end. Of course the operation of opening the abscess was a justifiable one, and it was advisable to give him chloroform in order to do this; as much dead tissue had to be removed by the curette, cocaine could not have been used.

Dr. Cartledge: You will find men who claim that nothing in an operative way is justifiable in patients the subject of marked diabetes, not even the opening of a small abscess. I have always been opposed to this view; I have never seen any ground for it. Within the last two or three years the claim has been pretty well established that any operative measure there seems to be a marked necessity for in diabetic subjects should be resorted to. Amputations have been successfully performed for diabetic gangrene, a course that I have urged on more than one occasion; and in one case I believe it would have been successful, because there was not much sugar in the urine; the foot was gangrenous, and I believe the patient would have recovered from the amputation.

In Dr. Marvin's case it is possible that the anesthesia may have hastened the end a few hours, but I believe the operation was entirely justifiable. I think the mistake that is usually made is, the surgeon's aid is not called sufficiently early in cases of diabetic gangrene; I believe that lives might often be saved by early amputation.

Dr. S. G. Dabney: It is a well-known fact that diabetes is frequently the cause of cataract, and in operating upon these cases, while the prognosis is not quite so good 'as though the patient were in good health, still, as a rule, results are favorable.

Dr. Bullock (Epileptiform Convulsion during Anesthesia in a Patient that could not be Completely Anesthetized): Not long ago a woman, thirty-five years of age, consulted me, and I found that she had a lacerated perineum and hemorrhoids. I told her I thought she could be very much benefited by an operation. I made an appointment, and with Dr. Howard and Dr. Keller went to the house prepared to operate. Dr. Howard was the anesthetist and gave chloroform. For four or five minutes she took the chloroform nicely, there seemed to be no trouble whatever, but just as she was under the anesthetic sufficiently to be regarded as in the primary stage she had what I took to be an epileptiform convulsion; there was a marked spasm of the glottis, and the respiratory muscles were so much involved that she became very much cyanosed, alarming us greatly. Thinking this might be due to some accidental cause, we endeavored again to anesthetize her after she

recovered from the spasm, when she had another epileptiform convulsion, a tonic spasm of the respiratory muscles, and what seemed to be a spasm of the glottis, at about the same stage of anesthesia. We changed from chloroform to ether, and at just about the same stage she had a similar attack. We then tried a mixture of chloroform, ether, and alcohol, and the same thing occurred; finally I used a hypodermic injection of cocaine, ligated and cut off the hemorrhoids, and endeavored to divulse the sphincter, but could not succeed in making a thorough divulsion.

I will say that this is the only case I ever saw wherein I was unable to anesthetize the patient. She also told us afterward that she had had a similar experience in a dentist's chair from taking gas.

DISCUSSION.

Dr. Cartledge: In connection with Dr. Bullock's case, I want to say that in all my experience I have had only two cases wherein alarming symptoms have occurred. My second case was about ten days ago. The patient was a man, seventy-two years of age, upon whom I was to operate for hemorrhoids. He took the anesthetic very nicely, but in about two or three minutes the respiration ceased, then the heart, and without exaggerating the length of time, which of course seemed to us a half hour, the man certainly did not have a respiration nor a heart pulsation for seven or eight minutes; the length of time was so great that I had about lost all hope of reviving him. Artificial respiration was resorted to, and the patient was finally resuscitated.

Dr. Bullock: In the case reported by me I believe if the anesthesia had been continued the patient would certainly have died.

THE LOUISVILLE CLINICAL SOCIETY.*

Stated Meeting, December 19, 1893, Dr. P. F. Barbour, Vice-President, in the chair.

Dr. W. O. Roberts (Head Injury; Proposed Operation): This patient is thirty-seven years of age. Nine years ago he was struck on the head with a rifle; he was unconscious for four or five days, but had no physician; the scalp being torn, the flap was replaced without stitching and left to heal by granulation; he has had constant headache ever since the accident; his vision and hearing on the opposite side of the injury

* Stenographically Reported by C. C. Mapes.

are not nearly so good; the scar is not at all sensitive; there is no pain on pressure; he has never had an epileptic seizure, but has constant headache, and I bring him before the Society to get an expression as to the advisability of an operation. It seems to me that it is a case for exploratory incision; examine the condition of the bone, and if found to be fractured, depressed or thickened, then it may be advisable to take out a button; examine the condition of the dura; if found to be in a healthy condition, simply stop there, but if diseased, thickened, or pale, open it, and see whether or not it is adherent to the brain, and if so detach it. These operations, so far as my experience goes (I have done a great many of them), have not been very flattering in results. In all there has been marked improvement for a variable length of time, some extending over a period of months, but in all that have been watched there has been a return of the trouble. I see, however, in a number of periodicals of the day reports wherein permanent cures are recorded, which vary so markedly from my own experience that I would like to have the observation of the surgeons present.

DISCUSSION.

Dr. A. M. Vance: I think the procedure in this case ought to be regulated entirely by the amount of suffering. If the patient thinks he is incapacitated for his vocation, or suffers a great deal, I agree perfectly with Dr. Roberts that an exploratory incision be made.

Dr. J. A. Ouchterlony: There are two points that ought to be settled before operative procedure is resorted to. The first relates to the diagnosis more than to the condition of the brain substance, or the circulation within the cranium. Second, to more distant parts. The fact that the patient complains of impairment of vision, and in one eye more than in the other, seems to me to indicate an ophthalmological examination; secondly, the urine ought to be examined in order to exclude the presence of renal lesion. It is true, so far as symptomatology goes, there is nothing indicative of renal disease, nevertheless often urinary analyses have developed the existence of trouble with the kidneys that has not advanced sufficiently to give rise to well-marked symptoms. The mere depression of bone would hardly account for the impairment of vision.

Dr. L. S. McMurtry (Operation for Appendicitis): I have a specimen here from a case illustrating some important points connected

with the surgery of the vermiform appendix. The patient, thirty-three years of age, had been ill ten days. An examination revealed a tumor in the right iliac fossa; temperature 103.5° F. in the evening, 100° F. in the morning; rapid pulse; indications of suppuration. I operated yesterday morning, and after cutting down on the tumor found extensive adhesions; these being separated, over a pint of very foul pus was evacuated. Upon reaching the cecum I found the appendix and abscess posterior to the cecum, and in order to deal with it I had to separate adhesions and open the general peritoneum. This was done and the appendix removed. The patient went on the table with temperature as stated, pulse 118, and in six hours after the operation the temperature was normal, pulse 88. His pulse this evening is 74, and his condition thoroughly satisfactory.

I report the case to bring before the Society especially the method of operative procedure. As is well known it is a mooted point as to whether in dealing with these cases the surgeon should stop with opening up the abscess cavity and evacuating it. This case demonstrates that if only the original abscess sac had been evacuated two bags of pus would have been left and prevented the recovery of the patient. I believe we should never content ourselves in dealing with these cases, if the patient's condition will permit, with simply ligating and removing the appendix, but should also make a thorough examination of the colon in order to determine definitely if other pus sacs exist. The appendix in this case was up and behind the colon.

DISCUSSION.

Dr. Vance: It would seem for some reason that there is now more appendicitis than ever before, or we are beginning to recognize it more promptly, and I am glad Dr. McMurtry has brought up the question as to how far we should go in our operations. We ought to seek the appendix and remove it if found in the condition shown in the case reported, or if it be the source of trouble. The danger is very much lessened by completing the operation at the first seance, rather than in doing a second operation later. The chances are, in the case reported by Dr. McMurtry, if he had not gone into the peritoneal cavity and removed the two pus sacs described the result would have been fatal. It is sometimes impossible to get at the appendix without opening the peritoneal cavity. Another feature of importance is the treatment of wounds after operations for appendicitis. I have had one case of hernia

occur, and have been impressed with the great liability to hernia in these wounds, as they are of necessity usually made outside the median line. One instrument-maker in New York has sold, I think, eight dozen special trusses in the last year for the treatment of herniæ, the result of these operations. It behooves us to keep on a good belt or some other contrivance that will prevent strain upon the cicatrix.

Dr. Roberts: I agree perfectly with what has already been said about opening the peritoneal cavity in operating for appendicitis. After opening the abscess cavity and washing it out thoroughly, the appendix not being found, other conditions making it necessary, we should open the peritoneal cavity.

As to the question of hernia following appendicular operations, they are more apt to occur after lateral laparotomy than after median, and this is one of the cases in which I believe a multiple line of sutures advisable.

Dr. W. H. Wathen: It is certainly the best treatment to remove the appendix if it can be done without subjecting the patient to very great additional danger. When the peritoneal cavity has been opened and pus has soiled the peritoneum, it is better to go on separating adhesions and if possible get away the appendix. But if the pus cavity has been opened and the pus gotten away without opening or exposing the peritoneum, if we can not then find the appendix it would be bad surgery to attempt to remove it.

Dr. Ouchterlony (Three Large Gall-Stones, with Report of the Cases): I wish to exhibit to the Society a number of gall-stones, single, and of somewhat unusual size. There is no clinical history attached to any one of them, but I have brought them here for the purpose of illustrating some points in connection with the subject. I do not propose to address a learned Society like this upon the symptoms of gall-stone colic, but it happens now and then that gall-stones become impacted and that a number of complications arise which ordinarily are considered to be of quite rare occurrence. I am satisfied that they occur more frequently than is generally supposed. It is not very uncommon to find that patients suffer from repeated attacks of hepatic colic, with or without jaundice, and that a most careful search fails to develop the presence of a gall-stone in the fecal evacuations. Now this must be due to one of several conditions. Either the gall-stone is so large that, like the one I present here (obtained from the gall-bladder of

a subject in the dissecting-room at the University), it can not possibly pass out; or a gall-stone, though quite large, may enter the orifice of the cystic duct, giving rise to symptoms of gall-stone colic, but it soon tumbles back. Here are two specimens which illustrate that condition, one of which I owe to the kindness of my friend, Dr. Satterwhite. Gall-stone colic occurred over and over again, but no gall-stone ever passed. The third condition is where the gall-stone enters the duct and passes into the common choledoch duct and becomes impacted there. The last condition is where the concretion passes through, or a number may pass through and become lodged in the cecum. In the latter case it happens often enough that, after a large quantity of fluid purgatives or a large dose of sweet oil have been given, a great number of gall-stones are found in the evacuations. It has been supposed that the sweet oil has caused the expulsion of the gall-stones from the gall-bladder. This is manifestly impossible. I do not see how sweet oil can have any other effect than of simply loosening up the mass that has formed in the bowel, and thus promoting thin fecal evacuations.

My observation has been this, that when there are a number of attacks without jaundice and without the finding of gall-stones in the evacuations, the gall-stone has tumbled back into the gall-bladder, as it did in the case which I have just spoken of. When a gall-stone becomes impacted in the common choledoch duct there is more or less impediment to the passage of bile, and, besides our not finding any gall-stones in the evacuations, while there is recurrence of the fits of colic there is also jaundice, and often more or less enlargement of the gall-bladder. The evacuations are not always entirely devoid of bile; the obstruction to the bile being only partial, the bile would trickle down past the impacted stone. When the latter occurs of course there is danger of ulceration and perforation of the common choledoch duct and general peritonitis. When the gall-stone is so large that it can not enter in the cystic duct, of course, while we have a great deal of pain, we are likely to have two conditions: one the absence of jaundice, the other cholecystitis. This cholecystitis I have seen in a number of cases result in entire occlusion of the orifice of the gall-bladder, and under such circumstances the gall-bladder does not become reduced in size, but on the contrary is liable to increase and become quite large. The latter change is due of course to exudation from the vessels and to accumulation of pus, which is abundant in proportion to the duration and the severity of the inflammation.

DISCUSSION.

Dr. Roberts: I quite agree with Dr. Ouchterlony that gall-stones frequently occur when not suspected. I made a *post-mortem* not long ago in a case that was seen during life by Dr. McMurtry, in which the woman had had a tumor in the right hypochondriac and lumbar regions. It was movable, and resembled very much an enlarged kidney. Notwithstanding the point of the tumor was to the crest of the ilium, and was quite movable, there was never jaundice, and the patient at the time I saw her complained of little pain. I witnessed a *post-mortem* on this case two years later, the woman having died of acute dysentery. We found the gall-bladder distended with mucus, but containing apparently no bile; in the gall-bladder were seven gall-stones, and the cystic duct was entirely closed.

Dr. P. Guntermann: The smaller stone exhibited by Dr. Ouchterlony was taken from a subject who had been for several years my patient for other troubles as well as for gall-stone colic. She passed through several attacks of short duration, and every time apparently perfectly recovered. She never had jaundice until the last attack. She was then attacked suddenly, and went to the office of a neighboring physician. He examined her superficially and prescribed for her; in the evening he was called to see her. He then made a very close examination and diagnosed appendicitis. The next morning there was no cessation of pain, patient still continually vomiting, and I was called in also. On examination of the patient I found a tumor which was loose and floating in the right hypochondriac region. Dr. Satterwhite saw the case twenty-four hours afterward, and at that time there was a distinct large tumor, not fluctuating, in the right iliac region extending from the lower ribs down. Diagnosis was then made of appendicitis. At eleven o'clock the next morning an incision was made, and the cecum and appendix found perfectly healthy, while out of the wound protruded a large, pear-shaped, angry, maroon-looking tumor. The incision was enlarged and tumor found to be the gall-bladder, which was opened, discharging some very ugly looking pus, and this little mulberry stone was found in the mouth of the duct firmly impacted. That case proves that gall-stones may lie in the gall-bladder for a long time and give rise to no particular trouble, then may pass into the duct and produce cholecystitis of a very severe character and be the cause of death. In this case the walls of the gall-bladder were about three eighths of an inch in thickness; the bladder itself was about five inches long, and perhaps two inches in diameter.

T. C. EVANS, M. D., *Secretary*

Pediatrics.

Under the Charge of Henry E. Tuley, M. D.

THE ANTISEPTIC TREATMENT OF SCARLET FEVER.—Dr. W. Jamieson (London Practitioner, vol. li, p. 454, from the Medical Magazine,) says that there appear to be four points requiring consideration: (1) The course of the infectious principle, (2) the treatment of the throat and mucous membranes, (3) the management of the skin, (4) the value of the "so-called" complete isolation alone, as compared with antiseptic measures and restricted isolation.

(1) There are three routes by which scarlatinal poison can enter the system: (*a*) by direct inoculation, which is rare; (*b*) by being swallowed, a more common source, the medium frequently being milk, a fluid in which the virus grows rapidly; (*c*) by inhalation, the most common method of transmission. Probably in all cases the first symptoms are manifested in the throat; the second, usually within twenty-four hours, as the eruption on the skin. It is almost certain that during the period of pyrexia the virus is multiplying in the blood, and is in process of being conveyed to the under surface of the skin. Deposited beneath the epidermis, it raises through its layers, and is finally cast off in flakes of exfoliating cuticle. Dr. J. has seen desquamation commence on the fourth day, but in the majority of instances it manifests itself from the ninth to the eleventh day. The process of "peeling" is not completed, if uninterfered with, till the end of the eighth week. It is never absent in a genuine case of scarlet fever.

(2) The best application to the throat is a spray of peroxide of hydrogen, ten-volume strength, repeated from three times daily to once in two hours. It should be continued, the intervals being extended, till all redness and swelling other than normal have disappeared, and till its application no longer induces pain.

(3) As regards the management of the skin, in the stage of exanthem we must favor the development of the rash by warm baths, which are best given at night, after which the entire surface must be smeared with eight ounces of almond or olive oil, containing a fluid dram of carbolic acid, and two to four fluid drams of oil eucalyptus. When desquamation commences, the warm baths must be supplemented by soap. Keep the patient in bed for three weeks, who should not be allowed to mix with others until peeling is complete and the hair washed several times.

(4) Dr. J. is of the opinion that isolation alone can not prevent infection, but no risk exists if the antiseptic precautions described are attended to. A wet carbolized sheet should be hung before the door of the sick-room. The nurse ought to wear a cotton wrapper, which can be laid aside when she leaves the room. All bed and body linen should be immersed in carbolic solution before being taken from the room.

STRAWBERRY TONGUE IN SCARLET FEVER.—This is the subject of an interesting editorial in the Medical News of November 4, 1893. Quotations are made from the works of Osler, Lyman, Whittaker, Strümpell, and from the special works on diseases of childhood by Goodhart, Ashby and Wright, Ellis, Henoch, Steiner, Vogel, and Smith, in all of which are conflicting comparisons made.

This uncertainty and confusion, in the opinion of the writer, is "due to a description of the tongue in scarlet fever less full than it should be."

"The changes that take place . . . in the first stage in the beginning of the disease are a white or yellowish coating on the tongue, the top and edges of which, however, are red, and through the coating the prominent papellæ show. This is followed after a few days by a shedding of the epithelium, whereby the tongue becomes red, and it is usually at the same time more or less uneven on the surface. Finally the tongue regains its natural form and color. In none of the stages is there any thing absolutely unique, as any one of them may be observed under other conditions. In regard to comparisons, it would seem to the ordinary observer that the second stage resembles the strawberry (still more the raspberry, however,) more than the first; but if we must retain the term, let us at least have some uniformity of application. The tendency at present seems rather toward diversity."

Quotation is made from Neumann (*Deutsches Arch. für Klin. Med.* Bd. 47), who observed the commonly accepted changes in thirty-eight cases of a total of forty-eight. He concludes that "the so-called scarlatinal tongue is a pretty frequent phenomenon in the disease, and in the majority of the cases in which it is absent complications or previous diseases have in some way altered the epithelium of the tongue."

EXCEPTIONAL CASES OF SCARLET FEVER (D. J. Caddy, M. B., Lancet, London, No. 3665, November 25, 1893).—On May 30th Dr. C. saw a child aged two years and five months. The mother six days previously had taken it to see her sister's children, one of whom was ill in bed with scarlet fever. Two days previously the child had a rigor, sore throat, and headache, and on the morning of the 30th a rash had come out all over its body. The face was flushed, child restless, temperature 101° F., the pulse 110, and the usual strawberry tongue, tonsils inflamed. The glands at angles of the jaws were tender and enlarged, and child covered with a uniform red rash. On the eighth day the face became puffy, and the urine contained a trace of albumen. The case progressed favorably, desquamation commencing on the twelfth day and lasting about fourteen days.

On August 14th, being again called to see the child, the following condition was found: The temperature was 103°, the pulse 120, full and bounding, the face puffy; the hands and feet were edematous, glands at the angles of the jaws much enlarged and tender; the tonsils were enlarged and ulcerated, and a pronounced bright-red uniform rash over the whole of

the body. The mother, believing the child free from danger of reinfection, had allowed it to play with another child who was recovering from scarlet fever, and this was the result. The urine was loaded with albumen, and the child's temperature rose to 104.5° . Desquamation commenced on the tenth day, and the child is now quite well.

Cases 2 and 3. On September 8, 1892, I saw a youth, aged sixteen years, who complained of a sore throat and headache, accompanied by vomiting and rigors. The next evening he was covered by a bright red rash, his pulse was 100, and temperature 100.5° F. He passed through the stage of desquamation, but had not finished on September 21st, on which day his sister, aged six years, was taken ill with similar symptoms, and had a severe attack of scarlet fever, which was accompanied by nephritis, her urine being loaded with albumen. Both cases progressed favorably, desquamation occurring, and the lad became quite well; but when the girl was seen about two months after her attack she still had traces of albumen in her urine.

On September 1, 1893, I was sent for to see the girl again. Her temperature was 103° , pulse 125, tonsils and glands enlarged, and the patient was delirious. She was covered with a red rash, and remained in a precarious condition for three weeks. Desquamation was very pronounced, some scales being exceptionally large. On the 14th the brother was taken ill with the same symptoms, temperature 103.2° , and pulse 180. He had no albuminuria, but was very scarlet from his face downward, and suffered greatly from his throat. Both patients have since done well.

LOCAL LESIONS OF SCARLET FEVER.—Dr. W. Dowson (Report Pathological Society, London; *Lancet*, No. 3665, 1893,) believes that the primary local lesion in this affection is in the tonsils, there being first a local disease of the tonsils and of the cervical lymphatic glands, and subsequently a general development of symptoms from absorption of toxines. The destructive inflammation of the tonsils was always present in greater or less degree, and it was one of the earliest signs to appear. An examination of the throats of five hundred persons had convinced him that the tonsils were permanently damaged by scarlet fever. The onset and establishment of puberty seems to have an influence in diminishing the liability to contract the disease. Some cases which occurred during an epidemic presented only signs of sore throat and fever. These he regarded as mild attacks of the disease. When relapses occurred they were accompanied by a fresh outbreak of sore throat. Where the primary infection occurred in a wound the throat was not usually affected. The tissues of the primary lesion might differ in their essential characters and in their hereditary qualities, and hence it was that surgical and puerperal scarlet fever were different from the ordinary affection. Where scarlet fever occurred in association with a wound, but the latter had not been the primary source of infection, there would usually be a sore throat accompanied by a healthy condition of

the wound. In puerperal scarlet fever also the sore throat was but little marked. He suggested that acquired immunity was really a local immunity, the changes in the tonsil induced by the primary attack being of a fibrous nature, and protecting it from further lesions.

Conclusions. His conclusions were that the sore throat was almost invariably present and was one of the first symptoms, that it recurred in relapses, that its severity was so proportionate to the symptoms that it had been used as a basis of classification of the disease, that it was absent when local infection took place in some abnormal part, that it left permanent lesions, and that at puberty and over thirty years of age the natural processes of development of the tonsil tended to limit the chance of acquiring the disease. He held that the sore throat and cervical lymphadenitis of scarlet fever were analogous to the chancre and bubo of syphilis and to the intestinal ulcer and enlarged glands of typhoid fever.

Diseases of the Chest.

Under the Charge of Ewing Marshall, M. D.

MILD INFLUENZA; CARDIAC THROMBOSIS; SUDDEN SYNCOPE.—(W. Percy Reynolds, London Lancet, December 30, 1893.) A young woman, thirty-one years of age, is the subject of a mild attack of influenza. Since the trouble had run its course, and after having examined the heart carefully, finding it weak, but no organic trouble, and as convalescence had begun, Dr. Reynolds gave the patient permission to gradually return to a normal way of living. She did a little more each day with apparently no injury, but steady improvement, until the third day of convalescence.

On the 23d she was foolish enough to stay up till 1 A. M. of the 24th, and at my visit on that day I found her to be not so well, the papillæ on the tongue having become somewhat ulcerated. There were no clinical symptoms of heart failure, though the pulse was weak. This I attributed to a want of sufficient nourishment, consequent on the soreness of her tongue and to the influenzal condition.

On Sunday the 25th a messenger reported at my house that she was in bed suffering from pain in her back between the shoulders, which nothing could relieve, and that she was very sick, and appeared to be much more ill. Her symptoms being urgent, Dr. Stokes, who lived close to the patient's house, was very properly sent for, but before he could render any service at all she had passed away.

A *post-mortem* examination was made on the following day. The chest and abdomen only were examined. All the organs were in a fairly normal condition, except that most of them were a little over the average size. The heart, which was certainly above the average in size, had failed in diastole.

The pericardium was quite healthy, there being no adhesions. On opening the right cavities of the heart an *ante-mortem* clot was found extending from the meshes of the furthest corner of the right auricular appendix into the right ventricle, and firmly adherent to the wall of the auricle. The valves of the auriculo-ventricular orifices appeared to be firmer than usual, but there was no organic lesion. On opening the left ventricle there appeared to be a plaque between the pillars of the columnæ corneæ, as if the *ante-mortem* clot which was found occupying the aortic orifice had originated at the heart's apex. The aortic and pulmonary valves were otherwise quite healthy. The thrombus occupying the aorta rested in the valvular orifice, and both it and that, occupying the right cavities of the heart, fulfilled the pathological conditions of typical *ante-mortem* coagula. The heart muscle appeared to be quite good.

Such cases as the above point a very positive lesson. All the profession know how careless patients suffering with *la grippe* usually are, and the medical faculty of Louisville lately had an object lesson in this direction brought prominently to their attention in the sad death of Dr. William M. Griffiths. The heart seems to suffer to a marked degree in this trouble, and it should be most carefully interrogated, and if found laboring the patient should be remanded to bed and kept in the recumbent posture until the attack is over. Likewise the patient should be warned and urged to take every precaution in convalescence against overexertion.

EXCEPTIONAL CASE OF CONGENITAL HEART DISEASE.—(Reported to North London Medical and Chirurgical Society by Dr. W. A. Malcolm, London Lancet, December 30, 1894.) Man, aged thirty-two, subject of congenital heart disease. Dr. Malcolm said that the patient had been under his observation for many years, and had shown signs all his life of this malady. Cyanosis and enlargement of the superficial venous capillaries were very obvious. There was in addition marked bulbous enlargement of the tips of the fingers. The patient on one or two occasions had had profuse hemoptysis from pulmonary congestion.

Notwithstanding these signs (?), on examining the heart there was marked absence of the symptoms (?) associated with the usual forms of congenital cardiac lesions. At the time the case was shown (December 14, 1893), beyond slight deficiency in the second sound over the region of the pulmonary artery, and evidence of some cardiac hypertrophy, very little that was abnormal could be detected. In spite of the absence of definite physical signs, Dr. Malcolm concluded that the lesion was probably a stenosis of the pulmonary orifice, with compensatory failure in closure of the septum ventriculorum or the foramen ovale, or both of them.

This report is quoted, first because it recounts an interesting case, but also to point a moral. It is really distressing to an exact man to note the liberties taken with our nomenclature by well-informed members of our profession. They use words, agreed to have and should have definite and

different meanings, as synonymous and interchangeable. In the above quotation it is the common error of using symptoms and signs in this careless way.

GANGRENOUS ABSCESS OF THE LUNG: OPERATION; RECOVERY.—Priestley Leech (London Lancet) reports this interesting case: "By physical examination located an abscess in lower portion of the superior lobe of the lung. First made an incision two and a half inches long in third intercostal space of left side. The incision was carried through the skin and the pectoral muscles down through the intercostal muscle. Then the needle of a small Dieulafoy's aspirating-syringe was introduced to the distance of two and a half inches, and not finding pus the needle was reintroduced in five or six different places with the same result. The incision was sewed up and a fresh one made in the second interspace. This time the second introduction of the needle was rewarded by finding pus. The syringe was detached, leaving the needle *in situ*, and the incision was deepened so as to cut through the pleura, which was adherent at that point. Lister's sinus forceps were introduced, closed along the needle, and then opened, and a portion of a female celluloid catheter was introduced and the forceps removed." Certainly a very interesting report, but what was the necessity of the preliminary incisions? Why not search for the pus with needle alone, and then when accurately located cut down and make whatever drainage and treatment decided upon? That is the method followed in locating abscesses elsewhere. The unnecessary cutting simply adds more gravity to the operation.

DISEASES OF THE LUNG are predisposed to by working in china and earthenware manufactories. British Government report (London Lancet, January 13, 1894,) on the pottery centers of Stoke-on-Trent, Hanley, Longton, and Fenton, give the following statistics: The total mortality from all causes among potters after the age of fourteen years shows that 42 per cent died from bronchitis, 8 per cent from pneumonia and pleurisy, and 21 per cent from pulmonary phthisis. In the cases of those who did not work at the potteries, only 26 per cent died from inflammatory diseases of the lungs, and 14 per cent from phthisis. Then, again, we find that the ratio of deaths ascribed to senile decay among potters was 4.5 per cent, while among the rest of the population it amounted to 12.5 per cent. But according to the report the worst feature of the business is that the mortality can be greatly reduced by slight expenditure and a little careful supervision.

ANESTHETICS IN PHTHISICAL PATIENTS.—Patients the subjects of pulmonary phthisis or other lesion of the air-passages, by which the sensibility of the passages is greatly increased when having to undergo operations necessitating the use of an anesthetic, stand chloroform much better than ether.

Abstracts and Selections.

INVESTIGATIONS ON THE INFLUENCE OF IRON WATERS ON HEMOGLOBIN.—According to the Medical Press and Circular, Dr. C. Reihl has carried out some investigations in patients in the clinic of Professor Kahler for the purpose of estimating the degree of influence treatment with the mineral waters containing iron and arsenic is capable of exerting upon the blood of anemic patients, especially as concerns hemoglobin in the blood corpuscles.

Summing up the results, Dr. Reihl found that under the systematic use of an arsenic-ferric water the production of red blood corpuscles is greatly in advance of that brought about by good nutrition alone. A considerable improvement in the blood can be effected even in the case of chlorotics who during the treatment with the water continue to live under the same conditions as those in which the morbid state was acquired. Extensive researches, carried out according to modern diagnostic methods, on the remedial value of chalybeate water are, with the exception of the work of Scheref, not to be met with, and the author therefore hopes to stimulate further allied investigations by this communication. Only in this way can the actual value of the different ferruginous mineral springs be precisely determined before theories as to their mode of action can be advanced.

Some may ascribe the success in these cases not so much to the arseno-ferric water as to the favorable conditions in which the patients were placed, but these are factors unavoidably involved in all experiments of the kind, and always form an important, nay, according to the opinion of many, the most important feature of the treatment. Speaking generally, the author is inclined to lay stress upon the considerable quantities of liquid taken daily, even in the ordinary "water cures." Quite apart from the specific constituents of the water, the imbibition of such volumes of liquid has an important influence upon tissue change, as has been shown years ago by Voit. It is manifest that this must be the case in a powerful remedy like arseno-ferric waters, although here the quantity of water does not enter at all into the question. Of course the daily quantity of arsenous acid taken is exceedingly small, and far behind that given frequently in Fowler's solution or in the pills containing arsenious acid.

Yet in spite of the minuteness of these doses an unmistakable arsenic mirror could be obtained by the fifth day from the urine of the patients, all precautions being taken to avoid error.—*Therapeutic Gazette, December.*

THE CURATIVE EFFECT OF ERYSIPELAS ON GONORRHEA.—Schmidt (*Centralblatt für Gynäkologie*, No. 30, 1893), on the basis of a single case, suggests that the curative effect claimed for erysipelas in the case of

certain malignant growths and of ulcerating gummata may also obtain in gonorrhea.

A girl, three years old, was brought to him, who had suffered for four days with vaginal discharge due to criminal attempt upon the part of an adult. There was edema of the greater lips and purulent discharge from both the urethra and vagina, and in this discharge typical gonococci were found.

On the sixth day of the gonorrhea erysipelas developed on the upper third of the thigh. At the same time it was noted that the edema of the greater lips had disappeared and that discharge had ceased. The following day the genitalia were absolutely normal in appearance, and no discharge could be obtained either from the vagina, vulva, or urethra. Two weeks later a deep abscess was opened on the outer aspect of the leg just above the ankle. The pus of this abscess contained streptococci. Two weeks after this operation the child was entirely well, and in the interval there had been no vaginal discharge.

It is well known that gonorrhea is difficult to cure in female children, and usually runs a tedious course. In this case the prompt disappearance of discharge with the development of erysipelas was striking. The case was again observed two months later, and there was no return of discharge from the genitalia.—*Therapeutic Gazette, December.*

ANESTHESIA BY COCAINE DEPRIVED OF ITS DISADVANTAGES.—Dr. Gautier (*Wiener Med. Presse*, No. 47, 1893,) recommends the addition of trinitrine to solutions of cocaine in order to render anesthesia by this drug innocuous. He employs the following solution:

Cocaine muriate (grs. iij),	dgms. 2;
Alcoholic sol. cocaine (1-100),	gtts. x;
Distilled water (5ijss),	gms. 10.

A hypodermic syringeful of this solution contains two centigrams ($\frac{1}{50}$ gr.) of cocaine and one drop of the trinitrine solution. He has used this solution for two years without the slightest disadvantage. Thomas, of Marseilles, has employed this same solution in anesthesia of the fauces and larynx. In three cases where a ten-per-cent solution caused grave symptoms of poisoning this preparation was used with success. In all cases it was well tolerated. His solution was made according to the following formula:

Muriate of cocaine (grs. xlv),	gms. 3;
Alcoholic sol. trinitrine (1-100),	gtts. xl;
Distilled water (3j),	gms. 30.

Local application to the pharyngeal or laryngeal mucous membrane does not produce the well-known sensation of dryness, which is usually observed with the use of cocaine, but an agreeable feeling. Trinitrine does not appear to reduce the anesthetic and vaso-constrictive action of cocaine.—*Cincinnati Lancet-Clinic.*

THE AMERICAN PRACTITIONER AND NEWS.

"NEC TENUI PENNĀ."

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D. W. YANDELL, M. D., and H. A. COTTELL, M. D., Editors.

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POISONS IN THE HOUSEHOLD.

In these days of advanced chemistry the general practitioner should know the nature of all poisonous compounds which have place in the domestic economy, and he should be held to be without excuse if, when poisoning occurs, he does not at once apply the proper antidote in the case.

We have been led to write as above from the fact that any time in the last decade we have known or read of cases of poisoning by such things wherein the doctor, called in the emergency, had timidly temporized to the injury if not the death of the patient, and to the damage of his own reputation. The poisons in more or less common use are caustic soda or potash ("concentrated lye") as detergents, arsenic in rat poisons, and in Paris green (CuHAsO_3) as a destroyer of potato bugs, phosphorus in roach poisons, lead in cosmetics, tin in canned goods, benzine and oxalic acid as removers of dirt and stains in fabrics, petroleum as an illuminant, and copperas, corrosive sublimate, and carbolic acid as disinfectants.

This list might be extended, but it is sufficient for our purpose, which is to urge upon the practitioner the necessity of acquainting himself with the simpler chemistry and toxicology of these pernicious agents. For in cases of poisoning by any of these the element of time is all important, and the loss of a few minutes in ignorant or timid waiting may decide the fate of the patient on the side of death. Indeed it is quite as important in poisoning by some of these agents to know what not to do as it is to know what to do. There are probably few

among even the most slenderly equipped ornaments of our profession who would not give the proper antidote in well-established cases of poisoning by lead, arsenic, or mercury; but, if reports can be believed, there are many doctors who do not know that carbolic acid has a definite chemical antidote, and who could be trusted not to prescribe water or alkaline carbonates in poisoning by oxalic acid, oil in poisoning by phosphorus, and emetics in poisoning by the mineral acids and caustic alkalies.

The following, which we clip from the Medical News of January 20th, calls attention to a dangerous household poison about which the books on toxicology are for the most part silent:

FATAL INTOXICATION WITH BENZINE.—Kelynack (Medical Chronicle, 1893, Vol. xix, No. 2, p. 113,) has reported the case of a woman, twenty-six years old, who, while under the influence of alcohol, swallowed about an ounce of benzine. Consciousness was lost; the pulse became quick and feeble; the respirations rapid and fairly deep; the pupils were contracted and irresponsive to light; the extremities cold, and the lips, ears, and nose distinctly blue. An intense odor of benzine emanated from the patient. The stomach was well washed out with warm water, the washings at first smelling strongly of benzine, and ether and strychnine were injected subcutaneously. In the course of three quarters of an hour of such treatment the woman became sufficiently conscious to ask for some water. She then complained of great pain in the abdomen, and appeared also to be suffering from nausea and severe frontal headache. A little later diarrhea set in, and in spite of all stimulating treatment the pulse became progressively weaker, and death took place from heart-failure twelve hours after the ingestion of the poison. On *post-mortem* examination there was general congestion, and all of the organs and tissues emitted an odor not unlike that of anilin. The bronchi in several places presented small, irregular hemorrhages. The heart contained fluid and semi-fluid blood of a dark reddish-brown color. The stomach was small and contracted and contained only a little brownish fluid. At various parts of the jejunum the ridges of the valvulæ conniventes presented hemorrhages. At about the middle of the ileum there was an irregular area, about nine inches long, where the mucous membrane was of a dirty-gray appearance and surrounded by hemorrhagic edges. The urine in the bladder contained albumen, cellular elements, and hyaline tube-casts.

If benzine can prove fatal in doses of an ounce, it is certain that the "coal-oil can" is more of a menace to life than most physicians suppose, since petroleum is the fullest representative of the whole benzine or naphtha series of compounds.

We know that petroleum is sometimes given as a domestic med-

icine in doses of a teaspoonful or more, and is now and then swallowed in larger quantity by misadventure, yet it seems to have been given no place as a poison in the works on toxicology, nor have we ever seen a scientifically constructed article upon its effects in overdoses, or the proper treatment to be pursued when it is accidentally swallowed.

This point got considerable accentuation in the mind of an editor of this journal the other day, when a mother came running to his office with the statement that her child, an infant of six months, had swallowed a teaspoonful or two of "coal oil." The patient showed no immediate distress, and an emetic of ipecac and warm water freely given had the effect of promptly emptying the stomach. A purgative of sulphate of magnesia was then prescribed, and the physician went about his business. In two hours thereafter, however, he was summoned back to the house to find the child with a feeble, rapid pulse, distended venous system, and slow and labored breathing. These symptoms were fortunately met by a combination of digitalis and belladonna, and the child made a happy recovery.

These incidents have convinced the editor that there is more danger in the domestic oil can than most practitioners are aware of, and that a first-class paper upon petroleum products as poisons is just now a *desideratum* in medical literature.

MATHEWS' MEDICAL QUARTERLY.

Editors American Practitioner and News:

In your notice of Mathews' Medical Quarterly, the title which you give to the journal is so misleading that I fear that it will do it harm. You will notice that you say, "A journal devoted exclusively to diseases of the stomach and intestines." You will see at once that I have made the specialty in which I have worked for many years first in the caption, namely, Diseases of the Rectum. Indeed, my main purpose in issuing the journal, as stated in the editorial, was to afford the profession an organ through which these subjects could be discussed. You will also notice that Gastro-Intestinal Disease is included in the title of the journal. You will do me a favor if you will make this correction in your next journal. Very sincerely yours,

JOSEPH M. MATHEWS.

We are more than pleased to make the correction; but beg to remark that our anatomical studies had somehow given us the impression that the term "stomach and intestines" might be made, by a stretch, to include the rectum.

Notes and Queries.

SOLAR CAUTERY.—The July number of the Pacific Medical Journal contained a very interesting article on the "Concentrated Rays of the Sun (solar cautery) as a Remedial Agent" by Dr. O. V. Thayer, of San Francisco. The results obtained in cases that special therapy ordinarily ignored were quite brilliant. To satisfy the numerous letters of inquiry from physicians all over the country, Dr. Thayer in the January number of the Pacific Medical Journal gives the technique of its use as follows:

The first step is to obtain proper lenses of pure transparent glass from four to five inches in diameter. My favorite is four and one half inches with a convexity that will focus the rays two lines in diameter=O. The eyes of the operator should be protected by dark goggles or glasses, as the concentrated light is injurious to the naked eye. It is impossible to watch the burning with unprotected eyes. To be successful, every step in the operation should be watched with assiduous care, that no injury be done by so potent an agent. When much surface is to be treated, especially if the subject be a child or timid person, anesthesia is necessary, general or local. Never attempt an operation unless you have a clear sky with perfect sunlight. (The rays will not act through a window-pane.) If the disease be a morbid or malignant growth, destroy the morbid tissues fully. The after-treatment is the same as in general wounds.

In the removal of discolorations of the skin, such as birth-marks, India ink and powder marks, etc., also capillary aneurisms (angioma), destroy only the cuticle, to avoid unsightly scars. In operating upon the surface of the skin I never continue the application longer than a few seconds at one time. Generally remove the lens as soon as the part turns a light gray color. The burnt surface should be dressed with zinc unguent to protect it from the air. Nature does the rest.

THE recent death of Dr. Edward Warren-Bey calls to mind many circumstances connected with his picturesque career. The journals have chronicled the details of his early life and his noted professional career in America, including his service as surgeon in the Confederate army, and his return to Baltimore after the war, where he resumed his medical practice and became professor of surgery in the Washington University Medical School. It was during this time that Dr. Warren became a conspicuous figure in the famous Wharton-Ketchum murder trial in 1871. It is related that Dr. Warren, in the course of this trial, made a retort to a lawyer that rendered him famous throughout the world. The Attorney-General of Maryland, Mr. Syester, who was conducting the case for the prosecution, having pressed Dr. Warren sharply for answers favorable to his cause, in

which he was foiled, the Attorney-General exasperatingly exclaimed, "Doctors' mistakes are generally buried." "Yes," was Dr. Warren's quick reply, "and lawyers' mistakes are frequently hung."—*Buffalo Medical and Surgical Journal*, January.

ON THE ETIOLOGY OF PRIMARY CARCINOMA OF THE GALL-BLADDER.—F. Siegert describes seven cases of primary carcinoma of the gall-bladder. In all he found biliary calculi. Many facts show that these calculi had been produced before the tumor, and that their presence had irritated the bladder. The author was inclined to this opinion, having found that the parts of the bladder that were not attacked by the carcinoma presented many signs of irritation. In comparing facts relative to the primitive carcinoma and secondary carcinoma of the gall-bladder, he arrived at the following conclusions: (1) That biliary calculi always co-existed with primary carcinoma of this organ, and exceptionally with secondary carcinoma: (2) biliary calculi are one of the causes of carcinoma of the gall-bladder, but are never found as a consequence of carcinoma.—*Revue des Sciences Médicales*.

VEGETARIANISM AND CRUEL TEMPERAMENTS.—There has been much written on the mildness of temper possessed by vegetarians. The Hindoo professional assassin or murderer is probably as cold-blooded and as ferocious a being as one may imagine. The Chinese are great vegetarians. Rice, beans in the green state, cabbage and large spinach, water-cresses and fruits enter largely into their diet. They are besides very fond of fish, and yet there is nothing more bloodthirsty and bellicose, more wild or more unmanageable than the Chinaman when aroused. On the other hand, the native Californians, like the native or dweller of the wild pampas of South America, who lived on an exclusive beef diet, were generous, self-composed, and not in the least given to either strife or bloodshed.—*National Popular Review*, January.

A FOUR YEARS' COURSE AT JEFFERSON MEDICAL COLLEGE.—At a meeting of the Faculty of Jefferson Medical College, held on January 8, 1894, it was unanimously resolved to institute a compulsory four years' course with the session of 1895-'96. This step was taken in order that the large clinical service of the Jefferson College Hospital (three hundred and fifty cases a day) might be utilized to the fullest extent in carrying out the desire of the Faculty to provide advanced medical education of a practical character.

HIS FIRST CASE.—A young doctor attending his first case of labor was very much frightened when the membranes ruptured and the waters gushed out, and, while looking in utter astonishment at the placenta, the husband said, "Doctor, do you think she will die?" "Die? of course she'll die: don't you see her bladder's busted and her liver dropped out?"—*Hot Springs Medical Journal*.

Special Notices.

SENNINE IN THE TREATMENT OF FEMALE DISORDERS.—(By M. Varnall, M. D., St. Louis, Mo.) Since the introduction of "Sennine" to the profession I have been using it in all appropriate cases, and with such satisfactory results that I can not refrain from recommending it as being valuable for the purposes claimed by the manufacturers. In vaginitis and leucorrhea it is admirable, and it has proved especially efficacious in pruritus. An especially obstinate case of the latter with a pregnant woman yielded after resorting to every method that had suggested itself to the writer. Improvement set in at once in this case with the use of "Sennine." In this as well as in all other cases of a like character such constitutional treatment was resorted to as deemed expedient, and was continued during the local applications which were made, not only within the vagina on prepared wool, but were also freely applied externally. This proved very grateful to the sufferer from the beginning, and at this writing the pruritus and irritation are entirely controlled. For ulcerations, specific and non-specific, it is equally applicable. In chancroidal sores it is, in my opinion, equal to any treatment that can be resorted to—in short it is valuable in any and all the various antiseptic uses for which it is designed and recommended. The eligible form in which "Sennine" is presented, its non-toxic and unirritating properties, except in cases of extreme sensitiveness, when it should be mitigated with powdered starch or fuller's earth, and its real therapeutic value must place it at the head of the long list of similar articles.

HABITUAL MISCARRIAGE.—M. D. Makuna, M. R. C. S., Eng., Lic. Med. University, Bombay, 1876, Trebeebut, Rhondda Valley, South Wales, says: "I have much pleasure in expressing my satisfaction with the results I have obtained by the use of Aletris Cordial. One of my patients who had miscarried three times previously took Aletris Cordial during the last three months of pregnancy, and was delivered of a fine, healthy boy. I ordered it at her own solicitation, as she expressed so much ease and comfort after the use of the first bottle. I am now giving it to two more patients who have miscarried several times before, and I am in hope of good results. I consider it a valuable addition to the Pharmacopeia, on account of its antispasmodic and nerve-tonic properties, and I should not like to go without it."

ALCOHOLIC EXCESS.—N. H. Pierce, M. D., 43 Pontiac Street, Ann Arbor, Mich., says: "I have used Celerina as indicated, and am much pleased with the result. I prescribed it in a case of extreme nervous debility bordering on tremens through alcoholic excess, and it not only quieted the nervous excitement, but seems to have acted as an antidote to alcoholism, so that the patient, a young man, son of a widow, whose chief fault seems to have been a periodical craving for drink, has remained sober and industrious for many weeks. He was seldom sober more than a week at a time previous to this. I consider it one of the most valuable of medicines also for dyspepsia, headache, dysmenorrhea, hysteria, etc."

In prescribing the products of Manufacturing Pharmacists, we should be guided to a great extent by the business standing of the manufacturers. No other house in the South or West has a better reputation for strict integrity than the Robinson-Pettet Company, Louisville, Ky. We do not hesitate to recommend the preparations advertised by them in this issue.

AMENORRHEA:

R Fl. ext. aloes, ʒj;
 Dioburnia, ʒviij.
 M. Sig: Teaspoonful four times a day.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

VOL. XVII. LOUISVILLE, KY., FEBRUARY 24, 1894.

No. 4.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

IS DIPHTHERIA ALWAYS OF MICROBIC ORIGIN, AND DUE TO CONTAGION?

BY T. B. GREENLEY, M. D.

This is a question that admits of controversy *pro* and *con*, as does that pertaining to some other diseases, to wit, scarlet and yellow fever, etc. I have not been able to trace the disease to contagion in any of the cases that have come under my observation. They have apparently originated *de novo*, but all that I have ever seen occurred in houses with cellars under them, except one, and that was unguttered, on a hill-side, where the rains produced dampness under it. The cellars, with one exception, were found to be damp, and some of them contained vegetable *débris*.

There is nothing very positive respecting the history of diphtheria anterior to the beginning of the seventeenth century. Dr. Hawventure, an Indian physician, who was contemporary with Pythagoras, describes an affection suggestive of diphtheria. Asclepiades is said to have performed laryngotomy, but Aretæus, of Cappadocia, gives the first description of the disease under the name of Syriac ulcer. None of the writers of the Middle Ages give an accurate description of the disease. Several speak of a disease prevailing as an epidemic, and from the description we infer it was diphtheria.

It is spoken of as prevailing in Holland in 1557 by Forestius; in Dantzic, Cologne, and Augsburg, by Joannes Wierus, in 1565, and in

Paris, by Ballonius, in 1576. The last named writer was the first to speak of a membrane. It was spoken of as an epidemic in Spain in 1583, and in 1611, by Juan de Villa Real. Wedel also speaks of an epidemic in Italy in 1618, and in Germany in 1718. The first reference we have to the disease in America was in 1659, by Sibley, where he speaks of children dying from "bladders in the windpipe."

There are accounts of its prevalence in New England on several occasions since that time.

"The first Swiss epidemic occurred in 1752, Dutch in 1747, and Swedish in 1755."

Bretoneau in 1821 describes diphtheria, but asserts its identity with membranous croup. He claimed it to be of specific origin, and not to be confounded with scarlatina. He also regarded it at first as a purely local disease, but afterward modified his opinion.

It is yet a disputed point whether or not diphtheria and membranous croup are synonymous diseases.

Since Bretoneau, the principal contributors to the history of diphtheria have been Trousseau, Bourgeoise, Baumgarten, Rilliet, Barthez, and Virchow. In 1847 the latter made the distinction between the catarrhal, croupous, and necrobiotic varieties of laryngeal affections.

After Virchow, the most distinguished writers on the subject are West, Sanderson, Billroth, Eberth, Klebs, Oertel, and Loeffler. The latter writer claims to have discovered the bacillus that causes the disease, and by culture and inoculation reproduced a disease somewhat similar to diphtheria in the guinea-pig. Roux and Yersin in a series of experiments confirmed Loeffler's results.

Rachford regards diphtheria as a local disease, and says that no inoculations by subcutaneous injections ever communicate the disease. He therefore believes the germ is an external and not an internal parasite. Robinson says he believes diphtheria to be primarily a local affection, and that it is a filth disease. Conner regards it as a constitutional disease. Bruce Low relates a case showing the communicability of the disease from a boy to his pet cat, thence to another cat, then to four children. Anderson believes that poultry or pigeons may be affected with the disease. Spear is of the opinion that filth in the soil or sewers may become the breeding-ground of the disease. Nelson says he has demonstrated that there exists a micrococcus of diphtheria, which can be cultivated, and when insulated in the guinea-pig the disease will result. Sproak inoculated a number of animals with the bacillus of

Klebs, causing albuminuria, which he considers a new proof that the bacillus is the cause of diphtheria.

In July, 1888, diphtheria broke out in the State Insane Asylum of Maine, and in spite of isolation, cleansing, and disinfection, persisted for months, the last case occurring in May, 1889. This persistence of the disease illustrates how hard it is to stamp it out under certain conditions. Veil thinks the disease can be carried by the healthy in their clothes.

Dr. Prudden made a very able report on diphtheria in 1889. It is the result of observations in twenty-four cases, early autopsies being made in nearly all. The only species of bacteria present in all the cases but two was what he calls streptococcus diphtheria. The second most common form was the staphylococcus pyogenes aureus or albus. About twenty other different species of bacteria were isolated in the course of this investigation. In no case was the bacillus of Loeffler found.

Experiments were made upon eighty animals with cultures from ten of the diphtheritic cases, with the following results: (1) In no case was a typical diphtheria produced. (2) In two animals no effect was produced. (3) In most all more or less redness and swelling occurred around the seat of the inoculation on the second day; in four cases a non-spreading, yellowish-white pellicle formed, consisting of necrotic mucous membrane, containing micrococci similar to those injected; in three cases a membrane consisting largely of mucus, non-spreading, and of dense, stringy quality, white in color, adhering moderately, finally appeared. Half of the animals died between the second and sixth day from feebleness.

Prudden believes in the insusceptibility of diphtheria in animals as we know it in man.

I am indebted for the foregoing memoranda to the recent able report of Drs. J. L. Smith and F. B. Warner.

From these condensed memoranda from various able observers it will be seen that a great difference in opinion exists as to the character of the bacilli which they regard as the cause of diphtheria, as well as the effects resulting from the inoculation of animals. But you may say it is only the verification of the old-time adage that great men will disagree, especially if they be doctors.

Now to the question of the cause of diphtheria. As before remarked, I have not been able to trace the disease from the sick to the well, and from the character of the localities where it prevailed have regarded it

of endemic origin. Whether the true cause of the disease consists of some species of fungus or ferment seems to me uncertain, when such able men as Klebs, Loeffler, and Prudden differ so widely as to their observations in this particular. I have always believed in the old Bible doctrine that like begets like; and if this is true, one must conclude that a special disease could not have several special causes for its production.

Then, as it seems to have been determined satisfactorily to scientists that Tyndall conclusively upset the old theory of spontaneous generation, I may be asked why I believe the cause of diphtheria may originate *de novo* from local forces in action. The fact must be patent to the minds of all thinkers that at some time in the history of the world the causes of many diseases had their origin. If certain conditions of the atmosphere, acting on certain elements of vegetation, could at any time in the past produce causes of disease, why may not the same results ensue in our day under similar environment? I can not but think this to be a rational conclusion. We often see in certain localities certain diseases recur in cyclical order. For instance, in certain sections of country we have a regular return of malarial fever, no doubt due to climatic and telluric influences, the severity of character being governed by the character of the weather. In some seasons there will be virtually no endemic disease, and in others it may be very severe.

But some will say that the seed or microbe of the disease remains from year to year, and during the absence of the disease remains in a dormant state, and at a certain time increases so as to develop the trouble. But when we reflect that these ferments are destroyed by a certain degree of low temperature, we must conclude that the same climatic influences that produced the disease one year will, the telluric and climatic conditions being the same, produce it the next.

All of us, no doubt, have seen isolated cases of diseases which are regarded as contagious occurring in localities where personal infection from patients of the same disease was impossible. Some of the cases of diphtheria coming under my observation occurred when no other cases existed in the neighborhood and where no possible communication with the disease could have occurred. I have known typhoid and scarlet fever and cholera to occur under the same conditions.

Now, if these are facts, which I presume no one will controvert, what must we conclude, provided the disease is due to a specific microbe? Why, that it is generated *de novo*; that is to say, it is of endemic origin, provided the cause is a microbe.

In the history of typhus fever as well as of cholera we have ample evidence that these diseases have developed on ship-board where many passengers have been crowded together, and when they were all healthy at the time of leaving port, and where no disease of the kind existed at the points of departure. These are things, of course, hard to be accounted for by our theoretical scientists, but they are nevertheless facts. Many things occur in the world's history that we are unable in our philosophy to satisfactorily account for.

I have thought some of our germ-theory men are somewhat too positive in their assertions as to the causes of some of our contagious diseases. Three of the most positively infectious and contagious diseases, two by contact, the other by inoculation, which are regarded as due to microbic action have so far escaped successful investigation as to the character of the bacillus. One might be excused for thinking, if the ferment of any disease could be found, those of variola, syphilis, and vaccinia would be of easy solution, as the pustule of each, which contains the virus, is easily obtained, and if any special microbe propagates the disease it should be easily discovered.

Dr. R. F. Stone, of Indianapolis, read a very able paper at the late meeting of the American Medical Association on "The Etiology of Specific Diseases." After apologizing for differing in opinion with many of his medical brethren in regard to the cause of many of the specific diseases, he remarked that "it was much easier to accept the dictum of others or to shift the responsibility of our views on to those who set themselves up as authority than to formulate the lessons of our own observation and experience; so much more convenient to accept the thoughts of others than to think for ourselves, that natural indolence protests against the sacrifice. In medicine, as in all other pursuits of life, we are more inclined to simply acquiesce than to contradict; and usually there is so little encouragement to do otherwise that we rarely wish to intrude our own opinion, but infinitely prefer that others may take the lead and we will follow, however fallacious and misleading such guidance may prove. Hence, it may be said to-day, as in the past, the greatest bane to medical progress is slavery to so-called authorities, and that one of the greatest hindrances to the acquisition of real knowledge is a blind reverence for great names."

He goes on to remark, "Has the acquisition of long experience or the accumulated knowledge of the past thrown no light upon the cause and prevention of the maladies under consideration? In answer it may

be said the proximate cause of specific disease is now, as it has ever been, one of the most puzzling questions with which the human mind has had to grapple. It can not yet be said that we have positive knowledge as to the specific poison, if we may so call it, which produces scarlatina, diphtheria, yellow fever, or cholera. The chemist can not detect in the atmosphere the cause of those infectious diseases which spread only through this medium or chiefly in this way, and, to assert that he can with certainty detect any peculiar substance in the blood of the most pestilential malady that is its positive etiological factor, would be a statement in advance of the facts of exact science. Neither by the microscope nor by the minutest chemical analysis can we distinguish the pus globule of smallpox or of syphilis from the most laudable pus of the surgeon. Nor have the most delicate tests as yet shown any thing especially distinctive in the saliva of a rabid animal by which a specific disease of this class is communicated so certainly and positively by direct contact. The *agens morbi* of these diseases in our present state of knowledge is still an unsettled problem."

Dr. Stone contends there are many difficulties in the way of establishing the bacterial theory of disease, and cites some referred to by Dr. Hartshorne, of Philadelphia:

1. Throughout all investigations which have been made or are likely to be conducted there remains the extreme difficulty, if not impossibility, of total separation between the microbes themselves and the matter of the vehicle in which they exist, such as blood, virus, vitiated secretions, artificial culture-material, or whatever it may be. All the effects ascribed to the bacteria, except their proliferation and mechanical intrusion, may with equal propriety be attributed to the toxic action of a portion, however minute, of the soil in which they have lived, whose modifications must be coincident with those with which they undergo.

2. The absence of the characters belonging to definite organisms in the easily studied virus of smallpox and vaccinia is presumptive evidence against the probability of such organisms being essential to the causation of other enthetic diseases.

3. Bacteria are rarely seen in the incipient stages of disease, but after the blood has become impoverished, the secretions depraved, or morbid products are undergoing decomposition, they are found most abundantly, and are found most numerous in materials of a septic or infectious character after their period of toxic intensity has passed by.

4. Bacteria have been sometimes abundantly discovered in healthy bodies upon the various mucous membranes, in the blood, and, it is said, in countless numbers in fecal discharges, without any specific disease following.

5. Suppuration may be produced without the presence of minute organisms of any kind. Bacteria have been found under Lister's dressings without suppuration following. Pathological investigators have destroyed all the microbes in a septic fluid, and yet found it to retain its poisonous quality. Various elaborate investigations have proved that fatal septic poisoning can be produced in animals by the products of decomposition without the presence of living organisms, and experiments have shown that normal blood, when deprived of oxygen, in the absence of micro-organisms, may acquire septic properties, and also that septicemia may be induced by injection of free fibrin ferment and other substances into the blood in the absence of such micro-organisms. The same condition has also been produced by the subcutaneous injection of filtered saliva containing no microbes.

6. While Klebs and Koch maintain the definite specificity of each minute microphytic organism, on the contrary, Billroth, Burdon Sanderson, and others assert their mutual convertibility according to the influences of environment, and Pasteur, Wood, and Formad report experiments making it appear that modification by culture is possible, converting an innocent into a malignant parasitic organism, or a death-producing microbe into one capable only of causing a transitory and not dangerous local affection, which nevertheless secures to the animal thus treated immunity when subsequently exposed to the deadly infection. But in none of these cases is there reported any morphological change whatever in the bacilli or micrococci experimented with, their capacity of reproduction through several generations being retained. "It is held by Professor Jaccoud and others that the bacteria of infection are indistinguishable from harmless ones, except by their effects."

Dr. Stone refers to and explains the several theories of the etiology of disease, but for want of time I can only refer to them:

1. The vital germ theory of Lionel Beale, who uses the term bioplasm to designate the physical basis of life and growth. This consists, according to his views, of separate particles of less than $\frac{1}{1000}$ of an inch in diameter, originating in the blood, and designed for the nourishment and growth of all the tissues of the body. New bioplasts are formed by divisions of mature ones, and the new ones continue to

grow by imbibition until they divide or contribute to the formation of solid tissues.

He believes these microphites exist in all the fluids and solid tissues of plants and animals, as well as in all mineral substances, and under all meteorological conditions, though dormant under some conditions of temperature and dessication. He believes they are indistinguishable from each other, and denies their relation to disease of any kind.

Contagious diseases are attributed by him to degraded or perverted bioplasts. These are what he terms disease germs, which have the property of self-multiplication like healthy bioplasts.

2. The chemico-physical theory of Liebig, which embraces the doctrine that *materia morborum* may consist merely of inorganic elements or compounds, which, by entering the body and acting as chemical poisons, engender specific diseases, and which affirms that the action of a virus is not essential to the development of a zymosis or fermentation in the human economy.

3. The nervo-glandular theory of the origin of specific disease has been plausibly urged by Dr. B. W. Richardson, of England, and is apparently the outgrowth of his studies of the Liebig doctrine. He was convinced by experiments that zymotic diseases could be communicated from one animal to another by inoculation of various secretions. He also succeeded in producing from such fluids alkaloidal substances of crystalline structure. Inoculation of these in solution was followed by the same specific disease as had yielded the alkaloids. Hence he concluded that any animal secretion might be made to yield a contagious principle to which he gave the name septine, and the maladies thus engendered were designated by him septinous. The true contagions, in his belief, are therefore all of glandular origin.

Dr. Stone says it is now known that some of the most remarkable pathological effects may be artificially induced, either by drugs, the precisely localized and measured action of heat and cold, or by other agencies acting upon the nerve centers in the brain and spinal cord. And since it is admitted that the brain is not only the instrument of the mind, but that it presides over and controls the functions of all the other organs, its own disorders therefrom can hardly fail to affect them.

Strong mental emotion may not only suspend or pervert particular functions, but is even capable of destroying life by arresting the action of the heart.

Sudden mental worry may excite dangerous interference with digestion, or start an abnormal cardiac rhythm.

The mental shock can check or increase the action of the kidneys, and in fact affect all the secreting or excreting organs of the body. Anger often brings on a convulsive attack, and insanity frequently follows close upon exaggerated mental effort, and especially upon violent mental emotion, whether of terror, grief or joy. The principle of moral contagion can not be denied. The mind is affected by imitative influences. Thus chorea is excited in some individuals by watching choreic movements in others, and a single hysterical patient may arouse in others symptoms almost identical with her own, while the direct influence of the mental state upon existing disease and in governing the susceptibility to others or favoring their development is of the most potent character.

He also cites the dangers of panics in times of threatened epidemics of disease.

The advocates of the various theories of the etiology of zymotic diseases all admit that nitrogenous matter in a decomposing or readily decomposable state affords the best possible pabulum, either for the development of microphytes, the infection of bioplastic elements, the elaboration of animal alkaloids, or the action of ferments. Hence, a *common condition* which all these agencies require for their action in the production of specific disease is the presence of an excess of such pabulum in the blood of the individual attacked. We should be careful not to ascribe specific etiological influence to the various vegetable micro-organisms, for in certain cases these may have been in the first place non-resistant, as when such a disease has been autogenetic and in no sense a derivative of antecedent disease of the same kind. This caution is especially applicable in regard to such an affection as erysipelas, which, although contagious, is also on very good grounds judged to be generable, especially during certain states of lowered health induced by renal disease and some other visceral affections. This remark is also applicable to those more contagious diseases, as diphtheria, typhoid and typhus fevers, and cholera, which, certainly infectious, may also be autogenetic. We might also include in this category scarlet and yellow fevers, gonorrhea, rabies, and glanders, which no doubt arise spontaneously.

It is not yet possible to say with regard to metabolic contagion what is the essential constitution of contagious matter, or what is the intimate

nature of the transforming power which the particle of such matter exercises on the particles which it infects. Nor are we able by actual demonstration to say that contagion is a material substance. The doctor regards it as being similar in character to heat, simply a condition of matter—a phase of force, or molecular motion—and from the nature of its action, contagion, like the force caloric, is in his opinion a mere condition of matter and not a substance.

Contagion, in his opinion, operates through the correlation of the vital and physical forces which may be in a state of perversion. The vital forces are assimilation, combustion, animal heat, nerve force, and contractility. The physical forces embrace magnetism, chemical affinity, heat, electricity, and motion.

The intimate nature of force, however, is the greatest mystery of all unrevealed phenomena; visible only in its effects as manifested to our senses it becomes at once an unknown and unknowable power, transcending all human knowledge and conception. We can only judge of its presence, therefore, by the peculiarity of its action and the effects which it produces.

If we accept the teachings of modern science, all matter is the vehicle of change, motion the result of change, and *force* the cause of change.

Life, as we understand it, depends upon the presence of a material substance operated upon by force, resulting in movement, and the harmonious inter-actions of those conditions when applied to the animal body not only constitute life but health, while its derangement as surely eventuates in disease and death.

There is one thing I would like to emphasize in regard to the germ theory of disease. That is to regard it, at present, as simply a *theory*, and not an established *science*, as some contend. We should remember how many fads in medicine have existed in the recent past which have proven to be without foundation in fact, and consequently soon passed away.

As Dr. Stone remarked in the outset of this paper, it is not best to take every thing new, as represented by some prominent men in the profession, as facts, without giving them proper thought and consideration for ourselves. It may be true, judging from the observations and experiments of some of our great men, that some diseases may be due to some particular microbes, but I think it would be a great mistake for the profession at large to regard all diseases as being due to some

special fungus or ferment, as has been asserted by some eminent members of the profession. Unfortunately, many of our prominent men are prone to take up with new theories, and without proper investigation drop into line, and publish favorable results as observed by them in their practice.

This was the case with many in Bergeon's gas method of treating consumption, the Brown-Séguard plan of rejuvenating old people, and the Koch mode of curing tuberculosis. At one time these theories were regarded as being based on facts, and those who were doubters in their efficacy or common sense were regarded in the light of ignoramuses.

Tuberculosis has been and is at present regarded, without doubt, by many as being the result of microbic action, but the supposed fact is now doubted by some of our able men. Although it is said that the bacilli have been cultivated, and by being introduced into the guinea-pig have reproduced the disease, it is possible that some impure matter has been mixed with the bacilli, which caused the pathological condition found in the animal. It is said by investigators that it is a difficult matter to obtain a pure culture of any bacilli free of all extraneous matter; and if, in experimentation, any morbid matter is introduced, pathological results are apt to follow. Then, again, it is said the guinea-pig is so susceptible to tuberculosis, as well as the monkey, that a slight variation from health may result in the development of that disease. There is no doubt that various species of ferment may and do accompany certain diseases, but at the same time may not be factors in their development or production.

Many cases of tuberculosis have been observed where the bacilli were absent. This is more especially the case in its early stage.

Then let us not be in a hurry to accept as facts all new theories simply because they originate with our great men.

I must beg leave to differ in opinion with the views of some eminent men in the profession who regard the germ theory of disease as being based on positive facts and as already a fixed science.

And I can not but believe that several of our so-called contagious diseases, from my own observation, can originate independent of contagion. Of these I might name diphtheria, scarlet fever, typhoid fever, and cholera.

QUININE IN DISEASES OF THE EAR.*

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The subject I have chosen to-night is an old one, still, I hope, of enough general interest to justify me in bringing it before so representative a body as this Society.

The consensus of opinion appears to be that quinine in large doses will in cases in which there is hyperemia of the ear produce deafness by increasing the blood supply to the external, middle, and internal ear. Some years ago, while house surgeon of the Manhattan Eye and Ear Hospital, of New York—Dr. Roosa was making his well-known experiments of the effect of quinine upon the ear—I saw one of these cases, and there was marked hyperemia. Dr. Roosa reports a case, page 171, of inflammation of the auditory canal caused by quinine. The man had also impacted wax of no telling how many years' standing. The wax in one canal was so hard and the canal so sensitive that it had to be removed by careful applications of nitric acid. Roosa, page 379, says: "The excessive use of quinine may also in rare instances cause incurable disease of the middle ear." On page 585 he cites cases of neuralgia of the ear cured by quinine. On the same page he says: "The diagnosis is of great importance, for one of the most valuable of remedies for neuralgia, quinine, is usually very harmful when administered in the course of catarrh or suppuration of the middle ear; indeed in large doses it is also harmful in all the inflammations of various parts of the ear."

Roosa, however, says, on page 641, that "it is well known that buzzing in the ear is caused by quinine; that many persons who are becoming gradually deaf from chronic catarrhal or proliferous inflammations of the middle ear, and who, as is the case with most other persons in our country, have taken some quinine in their time, jump at the conclusion that the quinine caused the impairment of hearing from which they suffer. Exact examination often shows that many such patients have never taken quinine enough to cause or even to cure any disease." It will be observed that Dr. Roosa makes himself easily understood on this subject, as he does on all others.

Pomeroy, page 315, says: "Inasmuch as quinine is administered largely for the treatment of malaria, and as the *latter* condition is known

*Read before the Louisville Medico-Chirurgical Society November 10, 1893. For discussion, see p. 140.

to act injuriously on the ears, it is somewhat difficult to arrive at an exact conclusion as to the effects of the drug on the organ of hearing." Page 318, he says: "The practical point regarding these matters seems to be to avoid quinine in cases when it is plainly obnoxious." Dr. Pomeroy, it will be observed, is non-committal.

Albert H. Buck, page 151, says: "Finally, in children the internal administration of quinine sometimes gives rise to an acute or subacute inflammation of the middle ear." I have seen several such cases, two of three he cites, three and five years of age, in which with each dose of quinine the membrana tympani became more and more red until the ears became quite painful, for which hot applications had to be made to allay. Both these children he said, however, had a tendency to nasopharyngeal catarrh. He says: "Hence, I am not prepared to say that in a perfectly normal state of the tympanic and tubal mucous membrane quinine is competent to excite an acute inflammation, but simply that in young children more particularly this drug is capable of fanning a slight and perfectly painless tubal (and perhaps tympanic) catarrh into a fairly acute inflammation of the parts."

Toynbee, page 499, says: "Thus it is often said by patients that after somewhat large doses of quinine they have suddenly been attacked by a violent ringing in the ears, accompanied by considerable difficulty in hearing, an affection which generally, although not always, entirely disappeared after a while."

Burnett, page 568, in answer to the question, "Does quinine make one permanently deaf?" says, "So far as I am able to give an answer, it is always in the negative." Page 569, he says: "But so far as my experience goes all necessary doses of this useful drug can be given in any case with impunity whether the ears are affected or not."

Dr. H. N. Spencer says he believes it possible that in some cases quinine may permanently injure the hearing, but he has seen no case where lasting injury has resulted from quinine alone, other explanations of the deafness always being found.

Roosa reports a case of typhoid fever, page 648, which was deaf from quinine but which recovered her hearing. On the same page a navy officer who, after exposure to a severe storm, took twenty grains of quinine on retiring and woke up profoundly deaf; he ultimately recovered the hearing partially of one ear but not the other.

Weber-Liel says quinine and salicylic acid both will produce deafness.

As to the pathology of quinine deafness, if there is such a thing, it is still in dispute. Roosa contends it is the result of hyperemia. He says, on pages 643 and 644, that Hammond and Von Graefe agree with him, "that the tinnitus aurium following the use of quinine is the result of overfilled blood-vessels, and is not the anemia of blood-vessels not containing the normal quality or quantity of fluid." Weber-Liel verifies Roosa's views, quoted by Roosa from Brunner.

Kirchner says that "quinine causes inflammatory processes and permanent pathological changes in the ear." He believes that the cause for these conditions is to be found not only in a hyperemia of short duration but also in paralysis of the vessels with congestion and exudation.

Oren Green, Boston Medical and Surgical Journal, volume cviii, page 220, says: "From our present knowledge, both clinically and experimentally, we are justified in asserting that the action of quinine upon the ears is to produce congestion of the labyrinth and tympanum, and sometimes distinct inflammation with permanent tissue changes."

Roosa also says tinnitus and deafness following the use of quinine depend upon congestion of the ultimate fibers of the auditory nerve in the cochlea, and that the redness of the drum-heads is merely an index of the former condition.

Weber-Liel, as quoted by Pomeroy, page 346, says, in his experiments in connection with Gruber, he found no hyperemia of the membrana or meatus from one-gram doses of quinine, but, on the contrary, in five cases slight congestion previously present disappeared under its use; all resulting deafness disappeared.

"Knapp," so Politzer says, "in cases of blindness and deafness caused by large doses of quinine observed excessive paleness of the disk of the optic nerve with almost complete invisibility of the retinal vessels;" and he believes that a similar state in the cochlea causes deafness.

Prof. Jacobi and some of the authorities in Germany think the cause anemia instead of hyperemia. I think it well just here, since some authorities say that quinine deafness and blindness are the same pathologically, to give the result of the recent investigations of Dr. De Schweinitz in case of quinine blindness in the dog. Dr. De Schweinitz says:

In resumé we may say in regard to the microscopical points that we have thickening and changes in the walls of the central vessel (endo-vasculitis); organization of a clot, the result of thrombosis, an organization

which has been carried on even to the extent of its being channeled by new vessels; widening of the infundibulum of the vessels as the result of the constriction of the surrounding nerve fibers, presenting appearances not unlike a glaucomatous excavation; and, finally, practically complete atrophy of the visual path, including the optic nerves, optic chiasm, and optic tracts, as far as they could be traced. It seems, then, very likely that the original effect of quinine is upon the vaso-motor centers, producing constriction of the vessels; that finally changes in the vessels themselves are set up, owing, perhaps, to an endo-vasculitis; that thrombosis may occur, and that the result of all these is an extensive atrophy of the visual tract. Not the least remarkable is the selective influence of quinine on the optic nerves and the optic tract. In the sections and the micro-photographs herewith presented it will be seen that the ciliary and oculo-motor nerves, side by side with the optic nerve, are perfectly normal, and that even in the lenticular ganglion many of the fibers are perfectly intact, although others appear to have undergone a slight degeneration. The same, no doubt, is true of the other cranial nerves. The selective action of drugs is, of course, well known, the characteristic action of digitalis upon the heart being, perhaps, the most typical example. This, however, in addition to the well-known physiological action of drugs, appears to be a histological demonstration of such affinities. Why quinine should produce these lesions upon the nerves of special sense which supply the eye and the ear it is difficult to understand; that it has such action is unquestioned, and here meets with a positive microscopic demonstration. While, no doubt, the original effect is in some sense due to the influence of this drug upon the vaso-motor centers, this can not be the entire explanation, or we should have similar actions under the action of well-known vaso-motor stimulants, like ergot.

Quinine, it is well known, corrects tinnitus and vertigo when it depends upon anemia and debility. Again, quinine is the remedy in Menière's symptoms, which are given on page 525, Gruber, as "subjective auditory sensations of various kinds and duration; a feeling of alarm; uncertain gait; giddiness, which may become so severe as to cause the patient to fall down; momentary loss of consciousness; a tendency to nausea, or actual vomiting, and impairment of hearing up to total deafness after one or more seizures." It will be observed that I speak of Menière's symptoms, not his disease, as such symptoms are not always the result of semi-circular canal involvement, but may be produced by disease of other parts of the labyrinth, or even of the auditory nerve near the place of its origin, or the spinal cord and brain. Cases of true Menière's disease (hemorrhage into the semi-circular canal) do exist but are very rare, so rare indeed, and the symptoms so often the result of other pathological changes, that I think it would be

well to drop the name. It is hardly necessary for me to say that this suggestion is not original with me.

To further show that quinine is indicated in some affections of the ear, and that it can not only be safely given in some cases of suppuration of the middle ear, but may be an absolute necessity, I will report a case. G., a married lady; has three children; is quite healthy. Was taken suddenly with severe earache, right ear; I found drum-head bulging, auditory canal swollen, some edema over mastoid, and temperature of 103° F. I punctured the drum-head, had leeches applied to the tragus, and applied dry heat. Next day all symptoms were better. The second afternoon symptoms worse; hole made in drum-head closed. Again punctured and again leeched, with relief from pain and high temperature. Relief again next day; the ear discharging muco-pus profusely. The next day the ear still running freely, but in the afternoon there was great pain with increase of swelling over mastoid. Morphine had to be given to produce rest; another day of improvement, followed by another of pain. Recognizing that all symptoms were worse about 5 P. M. every other day, I anticipated the next exacerbation by twenty grains of quinine, five grains every two hours, the last dose at 4 P. M.; this checked the pain for that day. Symptoms improved very rapidly under the quinine, which was given every other day for several days; it was then left off, and the patient did well for three or four days, when there was a sudden exacerbation with more pain and swelling than in the first attack. Quinine was again given with relief, and kept up for some days with the result of a good recovery.

This is a case in which quinine was an absolute necessity. It did not injure the other ear, which was normal. I have seen three similar cases, but none so severe as this. I present this question then to the gentlemen present: Have any of you seen any case of permanent deafness in which quinine was the only cause? It seems to me that the testimony of the general practitioners present, all of whom give a great deal of quinine, will be really of equal or more importance than that of the specialist; take, for instance, the cases reported by Roosa, in the case of auditory inflammation reported as the result of quinine, there had been impacted wax for years. Had there not been impacted wax with auditory canal inflammation, would the quinine have done any harm? Another case had typhoid fever; another case had been exposed to a severe storm on the bridge of his vessel on the ocean, enough of itself to have caused the trouble.

So in all the cases of quinine deafness reported other factors entered, so as to, in my opinion, cast doubt upon them. If asked the question, then, Can quinine, in such doses as are usually given, produce deafness where there is no other complication? I say I doubt the possibility. I of course exclude cases in which there is idiosyncrasy. Quinine, though, as most other medicines, has its poisonous dose, and it selects the ear and eye under such conditions to demonstrate it.

LOUISVILLE.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, November 10, 1893, Dr. T. S. Bullock, Vice-President, in the chair.

Dr. J. M. Ray (Occlusion of External Auditory Canal): This case is of some interest from a surgical as well as from an etiological standpoint. The patient suffers from occlusion of the external auditory canal. The history is that twelve years ago he was injured on the left side of the head. There is considerable difference in the symmetry of the two sides. As a result of the injury suppuration of the middle ear was established, and either as a result of this suppuration or the injury he now has occlusion of the external auditory canal. Not very far in the external canal is blocked up; there is a small opening in the center through which, by pressure, a small drop of pus may be protruded. He complains of the constant dropping of the pus into the naso-pharynx. As a result of the defective drainage there is an accumulation of pus over the temporal region, and by pressure above the ear the pus can be made to pass through the small opening in the canal and through the eustachian tube. I brought him here particularly to get the opinion of the members of the Society as to the advisability of an operation. Sometimes it becomes very painful and causes a great deal of trouble. Operations for restoration of the external auditory canal have been undertaken particularly for the removal of bony growths. The best method of operating, if it is a bony growth, would probably be by the electric trephine. There have never been any mastoid symptoms, but the patient has had several attacks of swelling, pain, etc.

* Stenographically reported by C. C. Mapes.

DISCUSSION.

Dr. W. Cheatham: It seems to me that an operation is not only advisable but rather urgent. I think an incision should be made and the auricle turned forward to see what the obstruction is. It is evidently not an ivory growth. I would open the ear, follow up the sinuses, clean them out and remove the obstruction, whatever it may be.

Dr. S. G. Dabney: If the suppuration is from the junction of the cartilaginous and bony portion of the canal, it would hardly be necessary to turn the auricle forward, as an operation could be performed through the external auditory meatus. In this way the sinuses emptying in the canal would be thoroughly drained and the discharge of pus facilitated.

Dr. A. M. Vance: I think, from Dr. Ray's report, there is some trouble between the periosteum and the skull entirely above the canal. I believe you will have to go in above the ear and clean out whatever may be necessary, then do what is required to open the canal. Evidently from the history of the case, that an exacerbation takes place occasionally, the pus accumulating above the auditory canal has caused necrosis, and I think it ought to be opened above as well as through the canal.

Dr. Ray: As to the method of operating, I think a point that should control us is how far back this obstruction extends. If it is simply in the cartilaginous part, or even a spicula of bone sticking across the canal from the injury, and the deeper parts of the canal are still unobstructed, an operation through the canal might be of some benefit. If the canal is obstructed down to the drum membrane, it seems to me that an external incision, turning forward the auricle and cleaning out the whole thing would be the proper method of procedure. To find this out I am inclined to resort to the trephine.

Dr. T. H. Stucky (Case of Sacro-Iliac Disease): This patient, Mr. H., aged twenty-four, fell out of a tree when he was six years of age. In 1885 I attended him during an attack of typhoid fever, which the next summer was followed by a fever which had every appearance of being septic. This was followed later by a bulging in the right side. Dr. Dugan was asked to see the case at this time (in January, 1891); the patient was anesthetized and a large quantity of pus, I suppose

nearly a quart, was evacuated, and with it a fragment of dead bone. The cavity was thoroughly irrigated, no further evidence of necrosis or distension was found, and the wound was closed. In the following March this sac had refilled; another incision was made by Dr. Dugan, and a large portion of necrotic bone was removed. The patient apparently made a very good recovery, when there appeared in the right iliac fossa a decided bulging. During the visit of the bovine agent he asked me if I had a case upon which it could be tried, and I referred him to this patient. Bovine was injected into the upper wound, and the preparation mixed with pus would come out the lower opening. But very little benefit was derived. During the attack of supposed septic fever there was almost complete loss of motion of the extremities. The patient has been in New York for over a year, and appears to get along fairly well. I brought him here this evening to see if any thing could be suggested to further improve his condition. It occurs to me that the head of the femur may be involved.

DISCUSSION.

Dr. W. L. Rodman: I think this was originally a case of sacro-iliac disease, most likely of tuberculous origin. I understand his grandmother died of tuberculosis, and the general appearance and condition of the patient would suggest disease of a tuberculous nature. Ordinary necrosis of the ilium in my experience has been very rare. I can only call to mind one case now, and that was a case of necrosis of the symphysis, seen with Dr. Anderson four or five years ago.

Dr. A. M. Cartledge: I do not think that the question of the pathological nature of this trouble is of so much importance as the origin of the lesion and the situation of it now, and what can probably be done as a means of relief. I think we all agree that in such conditions ninety-nine per cent are tuberculous in character. Like Dr. Rodman, I believe that this trouble originated as sacro-iliac disease. I think the first pointing of the abscess would indicate that, as well as other features connected with it. The case must be recognized clinically as being a most unfortunate one so far as any relief is concerned. I should think that a thorough curetting of these sinuses and the injection of iodoformized oil, after removal of all the diseased structures, would promise as much as any thing in the way of treatment.

Dr. Vance: I agree with what Drs. Rodman and Cartledge have said as regards the origin of the trouble. I think, considering the age of the

patient, if it should prove that he has not too great an amount of albumen in his urine, that possibly a more extensive operation than the curetting of the sinuses might be advisable. Probably a great deal of diseased bone and *débris* might be taken away by a thorough opening, and some repair occur. However, I think very little encouragement can be held out from operative measures.

Dr. E. R. Palmer: I think the near future ought to give us a differentiation between the wide-spread and exceedingly common disease known as pulmonary tuberculosis and these conditions that the surgeons speak of as tuberculosis of the joints, tuberculosis of the lymphatic glands, etc., especially in cases like this one, in which examination shows that the lungs are absolutely exempt from the trouble. If the lungs are almost invariably the seat of tuberculous development, why should not this young man necessarily have pulmonary tuberculosis? I further believe that in the near future typhoid fever, as we now call it, will be divided into several different kinds of fevers; so, is it not probable that these conditions we have been accustomed to look upon as tuberculous glands, tuberculous joints, etc., will be shown to be entirely distinct, having no connection whatever with pulmonary tuberculosis? From my clinical experience with these tuberculous surgical troubles, there is necessarily no connection between the pulmonary history of the family or the pulmonary condition of the patient. This is a subject to which I have given considerable thought in the last few years.

The essay was read by Wm. Cheatham, M. D.; subject, Quinine in Diseases of the Ear. [See page 132.]

DISCUSSION.

Dr. Dabney: I saw, several years ago, the only case that ever came under my observation where I thought there was permanent deafness from quinine. The patient was a very intelligent German woman between thirty and forty years of age. Unfortunately I did not see her at the time of the original illness when the quinine was administered, so I was obliged to accept her statements as to her exact condition at that time. She said, however, that her illness was a very trivial one, and there was nothing in her description of the symptoms to call attention to involvement of the ear. She purchased at a drug store twelve five-grain capsules of quinine, all of which were taken inside of

forty-eight hours, and for several days afterward she had an intense noise in her ears, rendering her almost completely deaf. An examination of the drum membrane showed no lesion. The noises gradually subsided, but deafness was still very considerable, hearing no better in loud noise; aerial conduction for tuning-fork longer and louder than bone; all symptoms pointing to labyrinth disease. Careful inquiry failed to develop any history of disease of the nose or throat sufficient to affect the middle ear. Judging from the history of the case, as elicited from the patient, and the symptoms present when I saw her, I concluded that the deafness was the result of the large dose of quinine producing disease of internal ear.

In a recent article on this subject Spear, of Boston, takes the ground that the aural symptoms from quinine and other drugs are really due to an affection of the center of hearing in the brain. It seems to me that this is a rather fanciful idea, especially in view of the fact that we see its effects upon the optic nerve and the membrana tympani.

As to the administration of quinine in ear diseases, I think we quite often have occasion to use it in suppurative inflammation of the middle ear. In this climate, at least, it is not infrequently that we encounter suppuration of the middle ear occurring during the course of malarial fever. I have had several cases which I can recall just now, in which the patients have had all the characteristic malarial symptoms attending suppuration of the middle ear, and of course in such cases I administer quinine. I have had no bad effects from giving it in these cases except temporary increased deafness and temporary increased ringing in the ears that was already present.

Roosa is still of the opinion that the lesion produced by the administration of quinine is an inflammation, or rather a hyperemia, and that in a certain number of cases it is followed by anemia and permanent loss of hearing.

Dr. Turner Anderson: In response to Dr. Cheatham's request that we state whether we have seen cases in which deafness has resulted from the use of quinine, I have never seen a case of deafness follow the administration of quinine; if it has produced any form of ear disease in patients under my care I have not been conscious of it. There are some points in the paper which are exceedingly interesting to me, especially with reference to the influence of quinine upon the vasomotor system. That quinine does influence the involuntary muscular fibers in some way I believe is pretty well accepted; just how this is

brought about, and whether it is proper to compare the action of quinine to ergot, cimicifuga, and other drugs which are known to have an especial action in that direction, is a question.

Dr. Stucky: I have never seen any permanent deafness follow the administration of quinine.

Dr. J. A. Larrabee: Quinine is a muscular irritant. Both theories in regard to hyperemia and anemia are correct, but the one effect follows the other. The first effect of quinine must necessarily be to contract rather than to dilate the blood-vessels, but that effect is followed as a result of the contraction by dilatation. If you use any agent which is going to contract the blood-vessels down to the arterioles, you are going to have a corresponding relaxation.

Now, if it were true that quinine produced permanent deafness, it would be a very unfortunate fact for people living in this part of the country. Quinine is given in the South and West with a very generous hand at least. Almost every practitioner begins the treatment of his case by the administration of quinine. But I think the number of cases of permanent deafness outside of other causes amount to practically *nil*.

Roosa takes away the etiology of his cases by stating the circumstances in which the condition occurred. A man might jump into the water and bring about incurable deafness in that manner. In attempting to explain the physiological action of quinine by its effect upon the blood-vessels it is about as hard as trying to explain, as has been attempted, the phenomena of anesthesia by the same cause.

Quinine produces its effect upon the sensorium by its presence in the blood in connection with the nerve structure itself, not by dilatation or contraction of the vessels, just as chloroform produces its effect; it is not by producing anemia or hyperemia that chloroform acts; such explanation is not in accord with physiological research. So I believe that it is hardly possible for quinine administered in physiological doses to produce deafness of a permanent character in the adult. In children I think mischief may be done by the administration of even tonic doses of quinine, because there we have not the same resisting powers that we have in adult life. In regard to quinine producing inflammation or suppuration in any portion of the body, I think the statements in this direction are a little remarkable, when we know that quinine inhibits the ameboid movement of white blood-cells and is of itself an agent to arrest and prevent suppuration. So that, in the present light

of therapeutics, I can not see how the effect of quinine could produce suppurative inflammation or permanent deafness when given in proper doses. As to the hyperemia produced by quinine, I doubt if this is ever permanent.

Dr. Wm. Bailey: The subject under discussion is an exceedingly difficult one to speak upon, because, notwithstanding the very general use of quinine, the physiological action of it is not fully understood. It is hard to make experiments and have observations sufficiently accurate to determine the real effect of quinine upon the economy with any degree of certainty. It seems to me, however, as against the proposition that quinine is capable of producing permanent difficulty in the hearing or sight, is the fact that difficulties of this character are not more common in malarial districts, where quinine is in almost daily use, than they are in northern districts where quinine is not used. The judgment of any man, who lives outside of a district where quinine is in absolute demand, on the effects of quinine is worth very little; under other circumstances the probabilities are that he would not understand the proper administration of quinine. In the cases cited by the essayist there were other conditions present to give rise to the phenomena, whether quinine had been administered or not. I believe, from the evidence observed in practice, that quinine in decided doses is capable of producing hyperemia. I believe this is confirmed by the fact that this is diminished by the administration at the same time of remedies that diminish congestion, such as ergot, bromide, etc. This will lessen, I think, the effect of the quinine, and you can give larger doses if you will accompany its administration by these remedies. It is true that many affections of the middle ear are favorably influenced by quinine. It has also been our observation that many subacute inflammations are benefited by making a more active irritation, if you please; and, even more than this, exciting a more active inflammation; then, upon the subsidence of that, we may hope for further relief of the condition. I believe, for instance, that chronic inflammations of the urethra are sometimes properly treated by exciting more active irritations, upon the subsidence of which there is further progress toward relief than would otherwise have taken place.

It occurs to me that the frequent administration of quinine causing temporary difficulties in hearing, and with such universal and complete recovery from that difficulty after the withdrawal of the remedy, shows very clearly that it is only a temporary disturbance.

Now, to show you again how we may misapprehend the influence of a remedy like the one under discussion: In some parts of the country it is firmly believed that quinine is an oxytocic; that it will produce abortion or premature delivery; and yet what is more common even in the South than to administer large doses of quinine during gestation? I think there we have an explanation in the fact that malaria produces a condition in which quinine instead of being an oxytocic is really a remedy that will prevent abortion. Say we have a uterus which from malaria is beginning to empty its contents prematurely, we have no more valuable remedy for arresting the emptying of that uterus than quinine; but in labor, when pains are incomplete or where they are lost, twenty grains of quinine is better than ergot. And I simply conclude that ordinarily, outside of toxic doses, quinine does not have any permanent injurious effect upon either sight or hearing.

Dr. Ray: I have seen a number of cases in which ear trouble was certainly made worse by the administration of quinine. I do not know that I can recall any cases where I was convinced permanent deafness resulted from its use, yet it is a very frequent experience to hear people say quinine makes their ears worse, and refuse to take it on that account. I think the experiments of DeSchwenitz, with which I was familiar, and also the later experiments of Dr. Roosa, go to prove that the deafness produced by quinine is a nerve deafness rather than a middle ear deafness. Roosa's first experiments brought him to the conclusion that there was middle ear deafness, but his later writings show that in all cases where deafness followed the administration of quinine there was some disturbance of the ultimate fibers of the auditory nerve.

There is no doubt but many cases of ear trouble are greatly improved by the administration of quinine. I have a gentleman under observation now who has suffered with earache for some time. When he came here he had fever every evening; temperature 101° F. By the daily administration of quinine his fever has disappeared and his earache has improved. It is a case of subacute middle ear inflammation, which I believe will subside without suppuration.

Dr. Rodman (Lymphoma; Operation): This lymphoma is one of the largest I have ever seen, being at least one-quarter larger than it seems now before it was put in alcohol. It was removed from the neck of a fine-looking young woman, married, about twenty-five years of age; it had been growing for three or four years, but never painful.

She stated that it grew rapidly during the last six months or a year. She thought its rapid growth was due to pregnancy. I saw her for the first time only two weeks ago, but did not operate then because her baby was only three weeks old. The tumor evidently began from one of the deeper lymphatic glands, situated beneath the region of the sterno-cleido-mastoid muscle. I made the diagnosis of lymphoma, and advised its removal. One end of it was well beneath the sterno-cleido-mastoid muscle, contrary to my expectations. From a careful examination it seemed to be quite a superficial growth, freely movable, and I did not anticipate the trouble I afterward experienced in effecting its removal. An incision was made anterior to and parallel with the external jugular, and removed in this way. Possibly it could have been removed more readily had I severed the vein; but, as accidents sometimes occur even from cutting the external jugular, I thought best to avoid it. Hemorrhage was rather profuse, but was readily controlled with forceps and pressure. While this tumor has softened at several points, as seen by a vertical section, I do not think it likely to be malignant degeneration.

Dr. Cartledge (Amputation of Limb for Sarcomatous Disease): This specimen is a limb amputated to-day. About ten days ago I saw the patient, a young woman, aged twenty-two years, who gave the history of pain in the region of the head of the tibia; there was some swelling, and she said it had been paining her for only a few weeks. She was treated by the expectant method for a while, followed by a marked increase in all the distressing symptoms. I saw her a few days afterward; found patient very weak and anemic-looking, temperature 102° or 103° F. I made an incision down to the periosteum over the head of the tibia; inserting my finger into the wound I found the bone extensively diseased, and pus was welling up out of the medullary canal. The incision was enlarged, the medullary canal opened, and the bone curetted until we thought the diseased portion had been removed. A few days later it was decided to make another incision posteriorly, as there was still intense pain in the limb; and I was confident that we could not remove all the disease and save the limb, yet we desired to give the patient the benefit of the doubt and save the member if possible. The patient's condition was so extreme that, after making the incision and finding that we could not locate the extent of the disease, I advised amputation at once, and it was done to-day. I believe the trouble is central sarcoma, with secondary infection by pus organisms. No microscopical examination has been made.

Dr. Vance reported a case some time ago which was like this in some respects, where there was severe pain about the head of the tibia, the limb finally being amputated. I am on record in the discussion of that case as saying that I believed many cases of supposed osteitis were really cases of central sarcoma. I think many of the cases we formerly thought were tuberculous inflammatory began as central sarcoma with perforation, the inflammation and osteitis being secondary to the sarcomatous change. In the case I have reported, day before yesterday upon the introduction of my finger into the wound several lumps of soft myeloid tissue were removed, showing the probable sarcomatous nature of the trouble.

Dr. W. O. Roberts (Very Large Tumor of Right Labia Majora): The specimen which I show here was removed from a woman thirty-five years of age, the tumor having begun six years ago in the right labia majora. It grew steadily, but slowly. Between six and eight months ago, she said, it began discharging a thin watery looking matter. I saw her yesterday for the first time, and upon examination found this tumor, which you will observe is about the size of a cocoanut. It was painful to the touch, and so very heavy that she had to lie with her legs wide apart, and while in bed the tumor was kept suspended in a sling. No secondary deposits could be discovered anywhere, so I advised removal of the growth, if for no other purpose than to give her temporary relief. The tumor weighs exactly three pounds.

DISCUSSION.

Dr. Vance: I think whatever may be the lesion, the proper treatment has been applied. Referring to the case reported by Dr. Cartledge, I am inclined to agree with him, considering the age of the patient, and the rapidity with which the disease progressed, that it is more than likely malignant in character.

Dr. Rodman: I did not hear the full report of Dr. Cartledge's case, but I am not inclined to think that this is a malignant growth. I think the very point made by one of the speakers as evidence that it is malignant is rather a contra-indication to it. Central sarcoma of bone is well known to be the least malignant of all sarcomata; they run a very slow course, at times seeming to be practically benign. The duration of central sarcomata, usually the myeloid variety, is from one, two, three, four, and even five or six years. There is the very greatest

difference between the course of periosteal sarcoma and myeloid or central growths. So I am very much inclined to think that this trouble is inflammatory rather than malignant. Of course the treatment was the proper one; the limb should have been amputated in either event.

Dr. Vance: I think that the tumor shown by Dr. Roberts is more than likely sarcomatous in character, and ought to have been removed, as was done.

Dr. Rodman: I do not agree with Dr. Vance. I do not think the growth is malignant at all; it does not have the appearance of a malignant tumor. I claim that the macroscopical appearance of these growths is almost as characteristic as the microscopical. I believe that it is a fibroma. Its weight, slow growth, and situation would point to either fibroma or enchondroma.

Reviews and Bibliography.

How to Use the Forceps; with an Introductory Account of the Female Pelvis and the Mechanism of Delivery. By HENRY G. LANDIS, A. M., M. D. Revised and enlarged by Charles H. Bushong, M. D. Illustrated. 203 pp. Price, \$1.75. New York: E. B. Treat. 1894.

In its original form this work had quite a satisfactory run, and in its revised form it has still further claims to recognition. The "mechanism of delivery" embraces about ninety pages, and the second part on the forceps a little over a hundred pages, enough, one would think, to explain fairly well the use of the forceps.

Some of the positions assumed by the author in regard to the mechanism of labor differ radically from the teachings commonly accepted. This he might be allowed to do without hostile criticism, if indeed he gave us something better. We have not been able, however, to discover that he has made matters a whit more intelligible, and one gathering his impressions of the parturient passages from this work would, in our view, find himself markedly at variance with actual facts.

The author's views of rotation, in occipito-posterior positions especially, are far from according with "well-known anatomical facts and with mathematical mechanics;" and to our seeming are exceptionally fanciful and non-lucid.

From the pages devoted to the use of the forceps, every idea that is valuable may be gathered. The treatment of the subject, however, lacks in vigor of style, and in clearness and completeness of ideation. The book is

characterized by a lack of display of scientific imagination. While much that is valuable may be gathered from its pages, there is yet field for a work on the use of forceps.

D. T. S.

The Healing of Rodent Cancer by Electricity. By J. INGLIS-PARSONS, M. D., M. R. C. S., M. R. C. P. (London); Fellow Royal Medical Chirurgical Society; Fellow Obstetrical Society, London; Fellow British Gynecological Society, etc. 82 pp. Price, Five Shillings. London: John Bale & Sons.

We have given the titles of Dr. J. Inglis-Parsons in full in order that the reader may know that, if he is one of those persons who infest medicine with false reports, he is a reporter of no mean standing.

A large part of the small work is devoted to the mechanism, construction, and management of the battery, which has little other value than to give the book enough to induce one to pick it up, since there is a car-load of good works already on the same subject.

That which really entitles the work to attention is the claim of a man of the high standing of the author, that he has treated with electricity four cases of rodent cancer without a failure.

One case of sixteen years' standing was cured by one application of four hundred milliamperes. The treatment took place in July, 1891, and the patient was still well in August, 1893.

No. 2 was a case of rodent cancer of the face of nine years' standing, and involving the left eye. The whole of the growth was gone over and destroyed in the course of forty minutes with three hundred milliamperes. This was in September, 1891, and in June, 1893, the sore was quite healed and the patient well.

The third was a case of rodent cancer of the face of ten years' duration, involving the nose, upper lip, and soft tissues. This returned in part, but was healed by a second operation, and remained well some months after operation.

Case 4 was one of rodent ulcer of fourteen years' duration, involving the cartilages of the nose and left nasal bone and soft tissues, and was healed with three applications. In June, 1892, the last treatment was given, and the patient, marvelously restored, remained well in September, 1893.

These reports, marvelous as they are, carry with them the impress of truth and accuracy. The only further question is, "are they full?" How is it that with such success the author has only four cases to report, when one would have a right to expect that his clinic would be full.

D. T. S.

Transactions of the Kentucky State Medical Society. New Series. Vol. 2. Thirty-eighth Annual Meeting, held at Frankfort, May 10, 11, and 12, 1893. Louisville: Printed by John P. Morton & Co. 1893.

The volume of proceedings of the Kentucky State Medical Society for 1893 is not surpassed in worth or interest by any produced since the formation of the Society. And well might we expect good work from the physicians of a State that has in a single city six medical colleges, and largely

more than a hundred men engaged in teaching the various branches of medicine. From the opening prayer to the benediction the proceedings seem to have been marked by earnestness and good-will.

The president, Dr. Arch. Dixon, of Henderson, made an excellent opening address, and the papers read were of a uniformly high order. Among the ever-ready and ever-interesting contributors to the list of papers and to the discussions was the veteran Dr. Greenley, whose example ought to prove an inspiration to the army of younger physicians.

The next meeting will be held at Shelbyville, where there is every assurance that under the able presidency of Dr. J. Q. A. Stewart we shall see a happy continuation of the good work so well under way.

The press-work of the volume is of the same excellent style and finish that ever characterizes the work of the enterprising house whose imprint it bears.

D. T. S.

The Medical Student's Manual of Chemistry. By R. A. WITTHAUS, A. M., M. D., Professor of Chemistry and Physics in the University of the City of New York, etc. Fourth edition. New York: William Wood & Co. 1893.

As Professor Witthaus' works are so well known, and this excellent text-book so universally used, we simply make note of the additions to this new edition. The arrangement and classification followed in previous editions are retained. The rules of orthography followed are according to those adopted by the Chemical Section of the American Association for the Advancement of Science, and by the National Bureau of Education. The chemistry of the carbon compounds is rewritten and considerably extended. The portion of the work treating of the alkaloids is especially prominent, and will aid the medical student materially, as the use of complex organic products, natural and synthetic, is rapidly increasing.

J. L. H.

Manual of Physical Diagnosis, for the Use of Students and Physicians. By JAMES TYSON, M. D., Professor of Clinical Medicine in the University of Pennsylvania, etc. Second edition, revised and enlarged. 237 pp. Price, \$1.50. Philadelphia: P. Blakiston, Son & Co. 1893.

The task of reviewing a manual of this kind is an easy one. The author is already well known in connection with his "Guide to the Examination of Urine," a work generally conceded to be second to none in the language. By the preparation and revision of this work he has brought the same concise and clear method to the thorough treatment of the subject of physical diagnosis.

It is not likely that the last word has been said in this department, but for the present the student will make no mistake in selecting this as his guide.

D. T. S.

Pediatrics.

Under the Charge of Henry E. Tuley, M. D.

RAPIDLY GROWING SARCOMA IN A CHILD, INVOLVING BOTH ORBITS AND SECONDARY GROWTHS.—Dr. Snell, at a meeting of the London Ophthalmological Society (Lancet, No. 3,661), reported a case, the patient being a boy aged four, who was well up to November, 1892, when he had mumps, immediately following which his trouble appeared, but later admitted having received a blow over the left eyebrow in the previous July from a pump-handle. Swelling of the lids resulted, but entirely disappeared after a fortnight. No attention was paid to this injury. By January the left eyeball was noticed to be prominent, the right in February. The left, which was always the worst, increased in size more than the right. He was admitted to the infirmary March 8th. He was then quite emaciated and anemic. The left globe protruded forward, but also downward and slightly outward. A swelling in the orbit above the eyeball and a feeling of growth in the orbit were detected. On the right side the conditions were much less marked. There were ecchymoses in both upper lids, and there had been epistaxis. The fundus oculi on both sides was normal, and vision apparently unaffected. There was a large swelling of the left temporal region reaching from the orbit to the ear, with large veins coursing over it. The orbital growth developed rapidly, on the left side especially; the eyeball became more protruded, and the cornea sloughed. The pre-auricular and cervical glands became enlarged, the growth in the left temple got larger, and one developed in the right temple, as did one over the coronal suture of the left side.

The patient died March 19th. At the necropsy, on reflection of the scalp four swellings were noticed, one on either side near the coronal suture, and the other two near the parietal eminence on each side. They were dark purple in color, and the last two were about the size of five-shilling pieces. They were under the periosteum, involving the bone. In addition the temporal fossa on each side had a tumor. Both orbits were filled, bulging the roof upward and backward. The growth involved the upper and inner parts, and was continuous across the interorbital space. The dura was thickened, the inside of the skull-cap bulgings corresponding to the external ones. There were a large number of affected glands in the *abdomen*. The microscopic characters were those of a rapidly growing sarcoma. The relations of trauma and mumps as a cause in this case was discussed, and it was mentioned that the lachrymal gland was unaffected.

WE copy the following from the editorial pages of the Cleveland Medical Gazette, January, 1894: "It has been proposed to organize a society of

all physicians in the State of Ohio engaged in the study, practice, and teaching of the diseases of children. If only those who hold positions as professors or lecturers on pediatrics are admitted to membership, the society will not be a large one, perhaps not exceeding fifteen members. But this is not so small for a State organization. The American Pediatric Society limits its membership to sixty. Physicians deeply interested in the diseases of children, but not engaged in teaching, might be admitted, if this was considered by the majority to be a better plan.

"At present there is no organization of pediatricists in this State. While admitting the good of having societies in any special department of medicine or surgery anywhere, there is no reason why there should not be a pediatric society in the State of Ohio. Such exist in other States, and have been found useful. For persons engaged in similar pursuits, and feeling similar interests, to meet on friendly footing and exchange views can not but result in mutual benefit. As to whether it is best in the interests of unity of the great profession as a whole to organize bands of special workers separately from the organizations of the general body, is a question experience must decide. We hope to see it decided in the way the greatest good may come to the greatest number, and not for the benefit of any special clique or class. As to the proposed pediatric society, let those interested express themselves fully and freely, that it may be determined what ought and can be done. Dr. George M. Clouse, of Columbus, is very enthusiastic over the project, and expressions of opinion, suggestions, or inquiries addressed to him or to the Gazette will be promptly attended to, in order that the wishes of those taking an active interest in pediatrics, may, as soon as feasible, be crystallized into some definite shape."

We quote this note in full, being so heartily in accord with the proposed plan. Should Ohio fail to produce sufficient enthusiasts, a Tri-State Pediatric Society might be materialized, embracing Ohio, Indiana, and Kentucky. We wish the society much success.

THE FEEDING OF INFANTS.—Hauser (*Berlin Klin. Woch.*, August 14, 1893,) speaks of the successful use of the new method of feeding infants. He has used, in Henoch's clinic and elsewhere, a preparation of cow's milk, introduced by Reith, in which, after cream and milk sugar have been added to make up for the deficiency in these substances, egg albumen, heated above 130° C., is also added to supply the deficiency in albumen. The preparation has the same composition as woman's milk. When cow's milk, properly prepared and sterilized, does not agree with the child, the author substitutes this preparation. He employs it in two classes of cases, first in those in whom the cow's milk is well received, but who do not thrive, and secondly, in those who have impaired digestion. Some sixty infants were treated with this preparation, and the author has now used it for one year and a half. The infants take it well, vomiting ceases, and the weight increases. In bad cases it is given cold and in small quantities.

The stools become regular and healthy, but are often offensive from the sulphur in the albumen. The preparation is also useful in acute diseases, rickets and other disorders attended with malnutrition. As the children grow older cow's milk may be added to the albumen milk until at length the former is taken pure.—*Annals of Gynecology and Pediatrics.*

MILK.—The *Lancet* (No. 3,661) calls attention to the great importance of milk as a staple food for the doctor's most sensitive patients, children. It is the chief constituent of and often the only nutrient element in many of his therapeutic dietaries, and probably the vehicle for the transmission of more than one specific microbe. In this connection the annual report of the public analyst shows the following very interesting result: During the short space of six years the condition of things has almost been reversed, and whereas, to speak roughly, in 1886 three quarters of the milk examined was bad, in 1893 three quarters of it is good.

Diseases of the Chest.

Under the Charge of Ewing Marshall, M. D.

ACUTE PNEUMONIA IN CHILDHOOD.—(Thomas S. Southworth, M. D., *New York Medical Journal*, Feb. 3, 1894.) Two varieties, lobar pneumonia and broncho-pneumonia. Text-book states that cases of lobar pneumonia are rare under the fifth year. Actual statistics now show us that about thirty-three per cent of the pneumonias of even the first two years of infancy are of the lobar variety.

Most lobar pneumonias are caused by the micrococcus lanceolatus or pneumococcus of Fraenkel. However, there are cases similar in all respects to lobar pneumonia apparently due to other germs, such as the bacillus of Friedländer, pyogenic bacteria, etc. Lobar pneumonia occurs most frequently in the spring months, and attacks by preference strong children, without preponderance for either sex.

Baginsky's classification of anomalous pneumonias: (1) abortive pneumonia; (2) wandering pneumonia; (3) gastric pneumonia; (4) cerebral pneumonia.

The right lung is more often affected than the left, and we find the left lower and right upper lobes most frequently involved. With superficial breathing the bronchial character of the breath-sounds often disappears.

Complications. Bronchitis of uninvolved lung. Pleurisy is common, may be with large effusions. Whenever the crisis is unduly deferred or there exist signs of delayed resolution with pyrexia, empyema should always be suspected and an exploration made. Abscess, gangrene, and chronic caseous degeneration are possibilities.

Prognosis. Generally prognosis is excellent, the mortality only about two per cent.

Broncho-Pneumonia. It is much the same insidious scourge of childhood in the winter months that the diarrheal diseases are in summer. It chooses weak and enfeebled children. It is especially distinguished from the lobar pneumonia by its gradual onset, its prolonged and irregular courses, and its slow defervescence by lysis. This is primarily a disease of the bronchi large and small, but it often involves every portion of the pulmonary structure. It may be accompanied by atelectasis, congestion, and emphysema.

The symptoms and course of broncho-pneumonia depend so largely upon co-existing conditions, especially in those cases secondary to the infectious diseases, that it is more difficult than in lobar pneumonia to present a classical picture. In the primary cases there exists for a day or two a bronchitis which may be considered the first stage of the disease, and it is noticed that the cough becomes more frequent and hacking, the temperature rises, the face becomes anxious, the respirations more rapid, and the alæ nasi dilate with each inspiratory effort. When the process in the lung has advanced the child lies limply in its mother's arms, its face pale or livid, its skin hot and dry. In nursing or drinking it stops every few minutes to struggle for breath. The lips are cracked and the tip of the tongue often dry. . . . The episternal notch, supra-clavicular hollows, and epigastrium are sucked in with each breath, while deep furrows are formed in the intercostal spaces and the less resistant chest wall is drawn inward along the insertion of the rapidly contracting diaphragm. The respiratory center attempts to substitute speed for depth. Respirations, 70 to 80 per minute, and the pulse becomes 160 to 200.

Each advance of the process in the lung, each transitory congestion, each area of collapse adds to the intensity of the dyspnea, and, unless relief comes, the respirations become more shallow, the pulse more rapid and feeble, the face assumes an ashen-gray color, and death ensues. In no disease of childhood, perhaps, are there so many variations, such sudden changes, such prolonged suspense, such disappointing relapses.

In the above description I have purposely omitted all reference to the physical signs, because no greater error could be promulgated than an attempt to make them conform to any fixed standard.

Prognosis. The favorable cases, from a prognostic standpoint, are those which run their course between 101° to 104.5° F. Patients with an excessively high temperature usually die, as do those in whom it never rises above 101° F. or is even subnormal throughout. [These low temperature cases are more likely to be capillary bronchitis.—*Editor.*]

The mortality has been estimated from thirty to seventy per cent, according to the age of the patient and the circumstances under which the disease develops. The younger the child the greater the danger. Favorable cases defervesce in from seven to twenty-one days.

Rationale of the Modern Treatment. As pneumonia is a self-limiting malady, we adopt the *expectant plan* of treatment. Temperature, heart action, and respiratory function give us our chief indications for interference. It is rather the effect of the temperature upon the heart, the brain, and the nervous system, which we should consider rather than its height in degrees. If producing delirious effects, it should be promptly combated. The bath and the wet-pack are undoubtedly the best measures. Other antipyretics are not to be entirely discarded, but, if used, their depressant effects must be remembered, and they should be guarded by the administration of stimulants.

More important, however, than the temperature is the respiratory function. Emetics to empty the bronchi are but rarely indicated because of their depressant action. The indication is best met by sustaining the strength by proper feeding and the administration of stimulants. Congestion should be avoided or combated by counter-irritation to the chest, by mustard pastes, mustard baths, the application of camphorated oil or turpentine and olive oil, equal parts, and the use of the oil-silk jacket. In some cases dry cups are of great service.

This strikes me as a very fine paper. Though I have quoted it at length, yet I have left out much that was good. Not a line of the whole article could be classed as *padding*.

TREATMENT OF ASTHMA.—Prof. Dieulafoy. 1. *Early stage of paroxysm:*

R Cocaine muriat., grs. xv;
Aquæ dest., ʒv.

M. ft. sol. Sig: Apply this to the interior of the nasal cavity. May be applied to the nasal cavity of throat by means of spray.

If this does not cut short the attack one fluid dram of pyridin may be poured on a handkerchief and kept near the patient, also stramonium leaves and nitrated paper may be smoked.

2. *At height of paroxysm:*

R Morphin. muriat., grs. iss;
Aquæ dest., ʒijss.

M. ft. sol. Sig: Inject half a hypodermic syringe of this solution, and repeat in a quarter of an hour if necessary.

3. *Inter-paroxysmal period.* Administer twenty to thirty grains of iodide of potassium in twenty-four hours. Of course its continuance is governed by its effects. May in some cases with advantage alternate the potash treatment by giving it for two weeks and then give belladonna for two weeks. At the same time a course of arsenic should be given at intervals.

4. If there be *emphysema* inhalations of compressed air.

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"NEC TENUI PENNĀ."

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JOHN L. HOWARD, M. D., Assistant Editor.

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THE VACCINATION QUESTION.

The recent endemics of smallpox in Europe and America have stirred anew the old controversy as to the protective power of vaccination, the proper method of its performance, and the incidents and accidents which accompany or follow this supposed to be trivial surgical procedure.

The anti-vaccinationists, like the anarchists, are still in the field; but they get no encouragement from science, and find no favor in the countenances of those in authority.

The time is passed when the negative side of the controversy can rally to its support any physician whose influence would be of weight.

Statistics as to the efficacy of vaccination multiply with the revolving years, and if Jenner were alive to-day he would find that his "beliefs are one with the falling rain and with the growing corn, by doubt they are established, and open inquiry is their bosom friend; the majesty of fact is on his side, and the elemental forces of nature are fighting for him." Smallpox to-day stands shorn of its terrors and at bay before his immortal and inestimable discovery. But while these facts are patent and incontrovertible, it can not be denied that this typical zymotic disease—contagious, infectious, inoculable—with a clinical history as clear as day, and local lesions more pronounced than those of any other, is still an etiological riddle, a real *opprobrium bacteriologicum*. Its epidemiological features are, however, happily no mystery, and there is now no community in the civilized world which, on

a threatened invasion, does not set up the prophylactic bulwark of vaccination against it, and abide behind it in confident security.

The enemies of vaccination, however, are not without some ground of complaint when the number of inefficient vaccinations are taken into account; nor are they to be blamed if they censure the profession for not agreeing as to the best method of doing vaccination, the number of inoculations to be made in each subject, and the proper care of the patients while sick of the induced vaccinia.

Moreover, they have a right to demand in these days of bacteriological enlightenment, that the virus used, bovine or humanized, shall be practically a pure cowpox culture, and not a mixture of this element with anywhere from six to twenty forms of microbe from the staphylococcus pyogenes aureus to the bacillus of tetanus.

We should have agreement on the part of the profession as to the first two of these questions, and Government inspection and regulation as to the last.

Purulent ulcers, exuberant granulations, keloids, abscesses (single and multiple), and sloughs, have not been out of the vaccination experiences of many of our local physicians during our own recent threatened smallpox invasion, and several fatal cases have been reported from distant points.

Apropos of the foregoing the following will be read with interest. The London Lancet of January 27, 1894, says editorially:

A correspondent has drawn our attention to an advertisement in a London evening paper, which is headed "Vaccination," and gives an address in the West-end, where vaccination is performed in "only one small place" on the infant's arm; "pure calf lymph used." In these few words we have the expression of the unfounded prejudice which has been raised against the proper performance of vaccination. A child vaccinated in this manner is very imperfectly protected, and yet will be probably certified as a case of "successful vaccination." Few figures are more convincing than those which have been adduced from the records of smallpox hospitals showing that the number of marks that are produced in vaccination are directly related to the degree of immunity conferred. The recommendation that there should be at least four vesicles having a collective minimum area of half a square inch is one which is based on sound deduction. The fact is that by many people (not, surely, medical practitioners) vaccination is regarded much as a rite that every infant born into the world has to be submitted to, and therefore they see no reason why one method should be preferred to another.

Lastly, it should never be forgotten that vaccination is of the character of a surgical operation, for which success can only be obtained by the exer-

cise of care and skill. Trivial as it may seem when measured by the side of the terrible disease which it is designed to avert, it involves, if carelessly performed, risks and dangers of its own. Vaccination in "one place" is no protection against these evils, for septic infection bears no relation to the area of the breach of surface whereby the poison may gain entrance into the blood. Care in the operation itself and in the after-management of the wounded arm affords the best safeguard, and for this reason we think that practice of vaccination should be itself safeguarded by more complete and thorough methods of instruction and of inspection than at present obtain.

More pertinently serious is the following from the pen of Dr. Rosa Engelmann (*Journal of the American Medical Association*, February 10, 1894):

In the proceedings of the Pediatric Section of the New York Academy of Medicine, reported in the January, 1894, number of the *Archives of Pediatrics*, Dr. J. Lewis Smith describes a case of fatal sepsis and death following vaccination. Dr. J. H. Fruitnight mentions a case of tetanus in this relation. Home and foreign literature contributes its quota of cases. The editorials in a recent number of the *British Medical Journal* entitled, "Militant Anti-vaccinators" and "The Vaccination Craze," unintentionally reveal the same unfortunate state of affairs. Consequently, the relevancy and justice of this opposition can not be overlooked.

Dr. J. Lewis Smith's case is commented upon as follows: "Inasmuch as the symptoms of sepsis had not developed for a week or more, the inference was that the wound became infected subsequent to vaccination. The case taught the lesson that greater care should be taken to protect the vaccination wound against infection."

Doubtless great and general carelessness prevails in this respect, but the criticism is not far-reaching enough, in that it fails to touch the root of the evil, the contamination of the virus itself. Reference has been already made to the unavoidable microbic pollution of the lymph. A little study, or, better still, a visit to a vaccine station, will convince one that there are other and many extrinsic sources of defilement. Here, in America, there is no certainty that the cow is prepared or the virus secured in accordance with the dictum of surgical bacteriology. The vaccine stables are private commercial institutions subject to absolutely no Federal, State, or municipal regulation. It is not sufficient that the stock be select and healthy, and the stables hygienic; the most rigid adherence to antiseptic principles in the bovine inoculation, subsequent dressing, and securement and preservation of the lymph, should be demanded as well.

An epidemic, if not pan-endemic, of sore arms imperatively calls for organized effort on the part of the profession, in order to effect improvement in present vaccine supply. . . .

A nursling, although marasmic and feeble from prolonged confinement to a ward that had been quarantined for an outbreak of measles, was vacci-

nated because of a smallpox endemic in the institution. The operation was antiseptically done, but, to my astonishment, almost every member of the large ward developed some vaccinal complication.

A recent visit to the stable from whence the virus was then obtained explains these manifestations.

The arm of this child, however, presented nothing abnormal, and the wound over the left deltoid was about healed, when the nurse called my attention to an abscess on the superior antero-internal aspect of the left arm. Other abscesses rapidly and successively appeared in the left axillary, infra-scapular, and pectoral regions, and finally another was found over the lower part of the internal saphenous vein. Nodulation and ecchymosis, involving the infected vein and contiguous tissue, occurred in each instance. Nasal and aural hemorrhages and the rapidly progressive prostration simply confirmed the original diagnosis. The post-mortem revealed —

When one contemplates this picture with no little gruesome experience as a background, one might be forgiven, if in his professional rounds he should follow the example of a certain very wise old doctor of our acquaintance, who refuses to indulge in such a surgical triviality as vaccination, and advises his friends to send the children to the young doctor whose large-lettered name over an impossible number of office hours is the most striking feature of the neighborhood.

DR. WALTER BRASHEAR.

The portrait of this pioneer in Kentucky surgery graces this number of the *American Practitioner and News*. In 1890 the senior editor of this journal, in the presidential address before the American Surgical Association, paid tribute to the memory of Walter Brashear, and established his claim to the honor of having devised a method by which amputation at the hip-joint might be successfully done. This feat was accomplished at Bardstown in August, 1806.

The technique of the operation as left by Brashear was incomplete in this, that it provided no trustworthy means for getting over its chief stumbling-block, hemorrhage. It remained for another Southern surgeon, Dr. John A. Wyeth, an Alabamian, and a graduate of the University of Louisville, to set this stumbling-block aside. As we have said in a previous issue, the names of Brashear and Wyeth must ever be associated in the history of this most brilliant and formidable operation.



Dr. WALTER BRASHEAR.

1776—1860

Notes and Queries.

THE ELEVENTH INTERNATIONAL MEDICAL CONGRESS; IMPORTANT NOTICE.—Gentlemen who contemplate attending the Eleventh International Medical Congress, which meets at Rome, March 29th to April 5th, will not be able to secure the reduced rates offered by steamship lines and European railroads unless provided with the following official documents:

1. General certificate securing reduction over the North German Lloyd steamship line from New York and return, and over the railroads of Italy, Russia, France, Spain, Portugal, Belgium, and England, good for two months (March 1st to April 30th) in Europe.

2. A *Lettre d'Invitation*, required only to secure reductions on the French railways.

3. A railway pass (*carta di riconoscimento*) consisting of three coupons, required for the Italian railways.

These documents, with full instructions relative to steamship and railroad rates, itinerary of various journeys in Europe, tariff regulations and concessions, etc., will be furnished on application to Dr. Charles A. L. Reed, Member of the American Committee of the Eleventh International Medical Congress, 487 West Sixth Street, Cincinnati, O.

PHYSICAL CULTURE.—Prof. George W. Fitz, of Harvard College, has the following to say about Physical Culture: We want to-day to do away with the results of conventional life; we want to do away with its limitations, which make us weak; we want to give to our children strong bodies, and in doing that we want also to give them stronger minds and brains. Now, how can this be accomplished? Can it be accomplished by using each muscle individually, by lifting dumb-bells, or can it be accomplished by such games as football, tennis, baseball, etc. It is a question of activity; it is not a question of merely muscular strength. Activity such as the Greeks had is the ideal activity. The forms they gave us in marble are ideal forms, many of them, and those forms resulted from their active, unrestrained life, from the absence of compressing and restricting clothing. To-day we want that kind of activity, and it can be gotten best in games and sports, because there you get the mental stimulus of the play, and you get activity and brain development. The games and sports that have commanded the time of the small boys have been those that demanded activity, that demanded skill, that demanded a quick perception of conditions and quick action upon that perception, the doing something instantly, and doing it at the proper time. It was a question of brain development as well as of muscular activity. Sports and games give this all around development better than any other form of systematic training.—*Chicago Medical Recorder*.

LIQUOR AURI ARSENI ET HYDRARGYRI BROMIDI.—Liquor auri arsenii et hydrargyri bromidi is an aqueous solution of gold, arsenic, and mercury, of a beautiful red color. It is acid in reaction, and does not deposit. The dose is ten to fifteen drops in half a wineglassful of water *ter die*. Ten drops is equivalent to one thirty-second of a grain of gold, one sixteenth of a grain of arsenic, and one thirty-second of a grain of mercury salts. The dose can be increased to fifteen or twenty drops, if desired. It agrees well with the stomach, and does not produce purgation of the bowels. I may add that it regulates the bowels in obstinate constipation better than any medicines I have used for that purpose. It ptyalizes quickly if given in large doses. The gums become red, the teeth sensitive, but there is little detachment of the gums or increased flow of saliva.

Where the action of such medicine is desired, I believe it will give better satisfaction than any thing yet discovered. In sclerotic diseases my success with it has been most satisfactory. In arthritis deformans, in syphilitic disease in its various forms, in aphasia hemiplegica, in induration of the liver, in induration of the kidneys, in all sclerosed conditions, nothing could act more satisfactorily than this preparation has in my hands.—*Dr. W. F. Barclay, in Brooklyn Medical Journal, January.*

DISINFECTANT ACTION OF SAPROL.—Saprol is produced as an oily brown liquid with an odor of carbolic acid. Specific gravity .099. Analysis (Spindler): saprol contains .43 per cent of phenol, 53.9 of cresol, 2.8 of hydrocarbons, pyridin, and other bases. Gross affirms that saprol constitutes an admirable disinfectant, devoid of the inconveniences presented by other disinfectants. Saprol is distributed in a uniform manner on all fecal matter, which it covers with an impermeable film. The phenol and cresol which it contains penetrate little by little in the subjacent liquids. To save 32.8 to 34.4 per cent of all saprol; in the case of neutral liquids 37.6 to 39.2. When the liquid possesses an alkaline reaction all the constituent parts exercise their disinfectant action. In the absence of an epidemic 1 per cent of saprol will suffice to disinfect all fecal matter. The yearly cost will in that case be 45 centimes per man. In the suppression of epidemics it is necessary to use 1 to 100 per cent of saprol. The yearly cost will be 4 francs 50 centimes in addition per man.

The fecal masses disinfected by saprol are perhaps utilized with the same ease as other salts. Lastly, its mode of employment is simple. It is only essential to stir the masses with saprol in the proper quantity.—*Vratch, 1893.*

BILLROTH.—Professor Theodore Billroth, the surgeon, died, February 6th, of heart disease, aged sixty-five, at Abbazia, the Austrian winter resort, where he had gone to recruit his failing health. In his death the world loses its most eminent surgeon, and pathology one of its most original investigators.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNA."

VOL. XVII.

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No. 5.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ASEPSIS WITH ESPECIAL REFERENCE TO ABDOMINAL SURGERY.*

BY LOUIS FRANK, M. D.

Instructor in Bacteriology and Assistant to Chair of Abdominal Surgery and Gynecology Kentucky School of Medicine; Visiting Physician to Louisville City Hospital, etc.

The cause of sepsis in the wounds of the surgeon is always due to the entrance of pyogenic organisms, without which there can be no suppuration infectious in character. This may occur from extrinsic sources or may be due to noxious matter from within, as cyst contents, tube contents, etc. Our object then is to prevent contamination. How is this obtained? Infection from extrinsic causes may be avoided only by the strictest observance of certain rules in the preparation of the patient, operator, his assistants, the instruments, and dressings. It is only those things which come in direct contact with the wound that cause pus. Atmospheric infection is practically *nil*, for we know that very few pyogenic microbes are found in air. Of course no one would operate in a ward or room containing any infectious or contagious disease nor in a dust-laden atmosphere. It has been shown by repeated examinations of air that ordinarily and usually no pathogenic germs are found; still we must, if possible, exclude even this remote factor. This necessitates specially prepared operating-rooms, which should be constructed so as not to present any corners, the walls being painted with a washable paint, and the floor made best of an artificial cement with a drain so as to permit its being flooded. All the tables in the

*Read before the Falls City Medical Society, November 2, 1893.

room, whether for the patient, dressings, or any thing else, should have either a plate glass or smooth marble top so as to permit being most easily cleansed. The wood-work, if any, should be of the highest finish for the same reason. Such an operating-room, with all conveniences for modern surgery, has just been completed at the St. Joseph Infirmary in this city.

Before the operation the walls and furniture should be wiped with a moist, clean towel, but never dusted. This may be easily done, and the walls remain perfectly white if painted with a zinc paint and then varnished.

But these preparations are of less importance than the preparation of the operator and his assistants, for they are the most frequent sources of wound infection. The operator and assistants should each have taken a hot bath and changed the linen either the night before or day of the operation, and thoroughly washed the hair and beard. In fact long hair or beard is out of place on an operator, and often have I seen perspiration run over the face and through the beard or trickle down from the scalp and fall in the wound. Do you wonder that sepsis is sometimes unexplained! Immediately before the operation, having divested themselves of coat, vest, collar, and cravat, and cuffs, the hands and arms should be thoroughly scrubbed, the assistants being just as careful in this respect as the operator himself, for even if they do not handle the wound they do come in contact indirectly with it, in that they handle instruments, sponges, etc. In fact all spectators should be compelled to follow the same rules, as an emergency may arise or they may forgetfully or unconsciously touch the instruments, etc. They should also don long white aprons with sleeves reaching to the elbows, as should also those to be engaged in the operation. These aprons should cover the clothes entirely, and should have been previously thoroughly sterilized by moist heat.

To return, however, to the cleansing of the hands, which, gentlemen, is a most important factor in this chain we are forging, and one that is often not carried out as it should be, the length of time spent in scrubbing is not so important, as it depends upon practice, dexterity, and knowledge of where and how to clean. How often have we seen men spend ten to fifteen minutes scrubbing the hands, but with what a brush! With perfect safety a brush may be used only once. It should be new (they can be purchased for fifty cents per dozen), and have been previous to use sterilized for a half hour in streaming steam.

After using once it should be thrown away. In this city there is only one operating-room where I have seen this method followed; in some other places the same brushes are used time and time again, the only precautions being to keep them immersed in the interval in a 1 to 2,000 solution of bichloride of mercury. This solution of bichloride merely retards the growth of the organisms for the time being, it does not destroy the spores, so that when we again use our brush we are doing what we try not to do—instead of cleansing we are bringing our hands in contact with organisms. Even after washing out our brushes thoroughly and re-sterilizing in steam they may only be used three or four times at the most, so that the plan of buying cheap brushes and using only once is really less expensive and far more safe.

Having then thoroughly cleansed the hands and thus mechanically removed all the organisms possible, they may be immersed in a 1 to 1,000 bichloride solution for three to five minutes, and rinsed in clean sterilized water or washed in alcohol. The mechanical cleansing is, however, of the most value. The nails must, of course, be pared and cleansed. Simply immersing the hands for a few minutes in a strong solution of an antiseptic is of little, if any, value, but is only practiced by those who pretend to know and are really ignorant of asepsis.

The operator then, having prepared himself, should prepare his patient equally as carefully. The patient should have previous to the operation a bath, and the parts shaved, and, in abdominal work, this shaving should extend to the pudendum. After shaving, the parts should be thoroughly washed again and covered for at least twelve hours with a towel saturated in a solution of bichloride 1 to 2,000 or 1 to 3,000. At the time of the operation, this towel being removed, the parts should be thoroughly washed with ether or with alcohol to remove the fat, thus getting away any dirt or septic matter that might be in the deeper layers of the skin.

In such operations as vaginal hysterectomy for cancer the cavity of the uterus should have been previously curetted and the vagina cleansed with bichloride solution. The patient should be attired, on coming into the operating-room, in nothing but a gown (which should be thoroughly clean) and a pair of new stockings. After being put upon the operating-table it is only necessary to cover with a clean blanket the chest and legs, or, in doing operations upon other portions of the body, to cover all parts of the body except that which is to be exposed to operation. These blankets may in turn be covered with sterilized towels. In

abdominal work it is especially desirable that thorough purgation should have been done, which is best accomplished by means of salts given every morning for several mornings previous to the day of the operation. This cleanses out the bowels thoroughly so that there will be no distension, and also prevents extravasation of the intestinal contents, should we be so unfortunate as to damage the bowel. So much, then, for the patient.

The instruments in abdominal work, or in work where the operator has time to prepare for the operation, should be sterilized best in a steam sterilizer; by instruments I mean also needles and sutures. If this is not possible, and the sterilization of instruments must be rapidly done, it can best be accomplished by immersing them for ten or fifteen minutes in boiling water, to which it is well to add a little soda to prevent rusting of the instruments. The instruments coming out of either the soda solution or the sterilizer should be kept covered with water which has been boiled and which is still warm. The instruments should be rinsed repeatedly in water during the operation to wash off any blood clots which may have formed on them. The sutures, if we are to use silk or worm-gut, which are far more preferable to catgut, may be sterilized also, as I have said, in the incubator or by means of boiling water. Of course this method is not applicable to the sterilization of catgut. In the use of catgut it is probably best to follow the method used in Von Bergmann's clinic as given by Schimmelbusch. This consists of "immersing the catgut sutures in a one-per-cent solution of sublimate in eighty per cent alcohol, in which they are left at least forty-eight hours, but even better still a longer time. This sublimated alcohol is better if changed every two days until the fluid remains perfectly clear, they are then preserved for use in ordinary alcohol." By this method it has been shown that catgut is rendered perfectly aseptic. I have examined bacteriologically silk, worm-gut, and catgut which has been sterilized in these ways and have never been able to demonstrate any organisms. The preservation of catgut in various oils is, in my opinion, not a good method, as in examinations of catgut preserved in a three-per-cent carbolyzed oil, and also tendons which have been preserved in the same way, I have been able to demonstrate numerous colonies of micro-organisms. Whether or not these were pathogenic I have not had an opportunity of demonstrating by experiments, but have seen stitch abscesses follow their use.

As to sponges and material that are to be used for sponging during the operation, I believe the cheaper and better plan is to use especially prepared and aseptic sponges. The method of preparing these sponges, which seems to me to have given the best results, is that of rendering them aseptic by means of sulphurous acid and repeated washings in sterilized water, then immersing in absolute alcohol. This absolute alcohol sometimes hardens the sponges, but they again become soft after being soaked in water. The method of keeping sponges sterile by immersing in bichloride solution and in carbolic solution is a bad one, as in case of sublimate it is with great difficulty that we are able to wash the sublimate from the pores of the sponge, and may in this way carry the sublimate solution into our fresh wound, which is undesirable, as you all know. In the case of carbolic-acid solution I have found that my sponges soon rot. This, however, is not due to the formation of any bacteria, but seems to be due to the action of the water. Sterilized gauze may be also used, but can not be rinsed as nicely as sponges nor used but once, and so is really more expensive.

Where it is desirable to hold back the intestines in abdominal work I think the large, flat gauze sponges are more serviceable than the other. We should, however, always take the precaution of tying a string to one corner so as to be able to again bring them easily out of the cavity. If these are not at hand, a sterilized towel may be used equally as well. No water to which any chemical germicide has been added should be brought in contact with a fresh wound, nor in the abdominal cavity to any wound even where pus has been present, as results have shown that these strong germicides also destroy the epithelium covering the peritoneum, thus rendering absorption much more easy. At the same time they do not destroy the organisms; the best that they can do is to retard their growth for a short while. So that in irrigation of the abdominal cavity, or in sponging the abdominal cavity, or fresh wounds that the surgeon may have made anywhere, it is advisable to use sterilized water. It is not necessary that this water should be filtered, nor is it necessary that it should be distilled water, it can be sterilized by simply boiling, allowing it to cool when the sediment of mud, which we find in our water here, will settle to the bottom, giving us clear water above, which may be used. In wounds, even where extensive contamination of the peritoneum has taken place by rupture of pus tubes, the organisms may be almost completely removed mechanically by irrigation with this sterilized water. Of course we also rely

upon drainage to carry off septic matter remaining behind and in shutting off the cavity from above to prevent contamination. For this drainage it is preferable to use sterilized gauze should the adhesions have been extensive, or should there be a large cavity which should heal from the bottom, or should there be much bleeding. Drainage-tubes may also be used with the gauze. In the use of gauze a point which I believe is important, especially in procuring good drainage, is to be careful not to pack the gauze too tight. Be also careful not to compress intestine. If packed too tightly we really prevent to a certain extent what we desire to obtain, perfect drainage. Also in the use of gauze, an objection which we have to it is the fact that frequently sinuses are left behind. These are not so often seen in the use of the drainage-tube, in fact very seldom, if provisional sutures are put in which are closed when the drainage-tube is removed. The ideal drainage-tube is the glass one, not only for the reason that it does not bend or is ever compressed, but can also be most easily sterilized. It should be sterilized at the same time we sterilize our instruments.

In suturing we may use the same needles repeatedly, but they should not pass through the hands of too many assistants. The needles and sutures should be kept covered during the operation, and should be only uncovered just previous to use; they, of course, having been sterilized, as I have mentioned before, along with the instruments. Even, however, with all this care it has been shown that infection may take place in the stitch-wounds, due to organisms in the deeper layers of the skin which can not be removed. (Welch.)

Another point in suturing to which not enough attention has been paid is tension on the suture. We should not make great tension, for the reason that if we do we cause the mechanical death or necrosis of tissue non-septic in character, but which readily becomes septic or at least affords a nidus for organisms. In dressing after the wound is closed it should always be thoroughly dusted with crystallized iodoform. Iodoform is not only an antiseptic on account of the iodine it contains, but also prevents germ growth by its rapid absorption of the secretions and its rapid drying, thus sealing hermetically any wound to which it may be applied, provided, of course, this wound is not too great in area nor the discharge of serum therefrom too great in quantity. After dusting thoroughly with iodoform we may bring on sterilized gauze. The use of gauze impregnated with bichloride of mercury is bad practice, as is also the use of gauze which has been impregnated previous

to the operation with iodoform. In the case of bichloride we have the crystals of the bichloride in the meshes of the cloth, which are perfectly inactive as preventers of germ growth, as the only way possibly in which mercury can act is in solution. Now, if the mercury is in solution where gauze is necessary, then we do not obtain perfect absorption of our wound secretion. The same can be said of iodoform gauze. The only way in which iodoform can be used in connection with gauze is to dust it into the gauze and rub it in at the time of the operation. In impregnations of iodoform it is always necessary to use glycerine and some solvent of the iodoform. These, of course, keep the gauze necessarily moist, and we have the same thing as we do in the use of moist bichloride gauze. Having thoroughly covered the wound with gauze we bring over this a layer of sterilized cotton, and then either a flannel binder which has been thoroughly sterilized by steam or the scultetus bandage. Where we have used a drainage-tube, or where it is necessary to leave on forceps for the control of hemorrhage, we can pack around these forceps with gauze, or with the drainage-tube we may leave an opening for the tube to pass through the dressing, covering the opening of the tube with sterilized gauze and with a rubber dam. This rubber dam, and also the pin with which it is held, should have been sterilized the same as our instruments in the steam sterilizer.

The point which I have desired to bring out in this paper is the entire absence of any mechanical germicide during the operation except in case of preparing the hands, and even then it is not necessary and often gives a false sense of security. Bichloride is perfectly inactive as a germ destroyer in the solutions ordinarily used. Its only action is to prevent the growth of organisms for a short while, and at the same time render the tissues with which it is brought in contact better able to take up and absorb these organisms. Mechanical removal of offensive matter is the ideal method. What we desire is absolute cleanliness. We can very often procure an aseptic condition in a septic wound by these methods. In cases where we have pus tubes which we have removed and where we think we have left behind a portion of the tube, or, as in cases of possible ligations in appendices, where we desire to render aseptic the canal, this may be best done by touching with pure carbolic acid and stitching over the end the serous coat.

After abdominal operations the pulse should be carefully watched, as it is really a better indicator of the condition inside of the abdomen than the temperature. By it we are enabled to tell a great deal more.

I have seen abdominal cases where the temperature would go up to 104° F. where the wound had been reopened and absolutely no pus found. The cause of this rise in temperature may sometimes be found in the excessive use of iodoform, but this should not argue against its continued use. We should purge early, and thus drain through the bowel as well as through the external wound. Salines are the ideal purgatives, but they may be contra-indicated where we have much vomiting or nausea. In these cases it is better to use calomel, repeated every half hour, with high enemata of glycerine and water, or of water containing in solution salts, for the purpose of producing catharsis. After the bowels once begin to move, and our patient begins to pass abundant gas, we may usually feel easy.

LOUISVILLE.

A CASE OF ERYSIPELAS.*

BY P. GUNTERMANN, M. D.

Since erysipelas is, strictly considered, a surgical disease, I do not propose to discuss at length what does not seem to properly belong to the domain of the general practitioner, though he may have to deal with it quite as often as the surgeon. Yet, in order to excuse the report of an every-day occurrence, it becomes necessary to at least make a *résumé* of the leading features, and then my case may seem to be apropos.

We know what erysipelas is. It is an infectious disease, manifested by more or less dermatitis or inflammation of the mucous surfaces, and also of the serous membranes. It is claimed, and I think justly so, that the first requisite is "a wound," ever so small, through which the system becomes infected. The infecting agent is the "erysipelas coccus." That it is a disease communicable from one individual to another, from man to beast, and *vice versa*. That it bears a close similarity, not to say relationship, to other dermatites, as erythema nodosum, eczema, etc. The positive differentiation is in the presence of the erysipelas coccus found in the blood, the tissues, etc., of the patient.

Erysipelas is conventionally classified *E. simplex*, *E. migrans* (fugax), *E. nodosum*, and *E. gangrenenosum*.

The cause of erysipelas, then, is (1) a wound, and (2) the coccus erysipelas, a bacterium. The symptoms, as a rule, are pronounced. It is

*Read before the Louisville Clinical Society, January 2, 1894. For discussion see page 180.

ushered in with chilliness, a chill or rigor more or less severe and prolonged. Soon fever sets in, and in most cases the temperature runs high and remains so until the disease abates. The skin is hot and dry, the tongue brown, parched, and cracked. Often we have delirium and marked prostration, always if the disease is protracted.

The local signs make their appearance at the site of injury and infection; we have itching, redness, heat, pain and swelling. The intensity of all these depends on the individuality of the patient. Erysipelas is more severe in old and debilitated people, and in those who have a peculiar disposition. There are persons who have this predisposition. The intensity also determines by which of the four varieties we will name the case on hand.

The diagnosis is comparatively easy, and seldom, I dare say, are mistakes made in this direction. The prognosis is nearly always favorable, except in the puerperal state—very often fatal—and in the feeble and debilitated, or when the disease is complicated by other disorders, particularly of the kidneys and contents of the cranium. Nephritic troubles are rather frequent complications.

The treatment is general and local. The systemic treatment consists in sustaining stimulating foods and medicine, and antipyretics and tonics, occasionally anodynes, etc. Locally we use the antiseptics in their different forms. Prophylaxis is easy and ought never be neglected. It should also be very strictly carried out. The patient ought to be especially cautioned to prevent relapses.

It may not be amiss to mention that the erysipelas bacterium has been successfully used in bringing on the disease artificially for the cure of cancerous disease. It is a mooted question whether the cure is the result of nutritive changes or whether the cancer-cells are directly destroyed by the new intruder.

The report of the following case shows, in my estimation, all phases of erysipelas:

Mrs. P. is sixty-six years old, of thin and wiry frame; she is the mother of nineteen (consecutive) children; has always been well until the climacteric period, at about forty-nine or fifty years. Since that time she has had four or five severe attacks of erysipelas. The last before this one was of exceptional gravity. The disease traveled all over her body, and general septic trouble set in, followed and attended by a number of abscesses. Finally she recovered and was quite herself again until the present attack.

Patient in attending to her feet had wounded the big toe of her left foot. A few days later she became aware of the presence of the old enemy. On the 24th of November a doctor was called, who diagnosed erysipelas, prescribed, and did not return. I saw patient for the first time on November 28th, and thence almost daily, making my last visit December 31, 1893. This was the patient's condition: High fever; temperature 104.5° F.; pulse 140; skin dry and harsh; tongue brown and cracked; great irritability and slight wandering; bowels and kidneys acted fairly well. The left foot and leg were enormously swollen, covered with large blisters and blebs, the contents of which were ichorous, opaque, and the surface underneath slightly granular, tending to suppuration. A gangrenous patch appeared at the inner malleolus, and the toe-nails were ready to drop. This part of the patient's anatomy had to bear the brunt of the infection.

From the knee up the disease migrated by making daily new invasions of the healthy skin. Up the thigh, all over the back to the neck, and down the left arm, up the neck over the hairy scalp, and over the face down the right arm, breast, abdomen, right thigh. So far the new invasion could be called simple. In the right leg and foot the swelling became very great, rivaling its companion. The constitutional changes became alarming. However, the patient rallied, the local trouble subsided, and she is convalescent.

The treatment consisted in liberal stimulative, light, nourishing food, large doses of quinine and tincture ferric chloride. Locally I used a dry antiseptic powder covered by boric cotton. I always prefer dry applications, in this case particularly, on account of the extent of the disease and the discharge from the numerous denuded surfaces.

A sister of the patient, who acted the part of a nurse, contracted erysipelas of both hands and arms.

Formulae used:

R Ferric citr., ̄ij;
 Tr. ferric chlor., ̄j;
 Glycerine, ̄ij.

M. Sig: Teaspoonful dose.

R Fuller's earth, ̄ij;
 Talcum, pow'd, } āā ̄j.
 Boric acid, . . . }

M. Ft. chart. Sig: Local use.

LOUISVILLE.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, January 5, 1894, Dr. J. M. Ray, President pro tem., in the chair.

Dr. A. M. Vance reported a case of a man seventy-five years old, who, while emptying his bladder with a catheter, had broken the instrument and allowed a piece of it to slip out of reach. It was found in the membranous portion of the urethra, and was withdrawn without any difficulty with a small pair of forceps. The case was mentioned as a fortunate one, as in most instances the catheter would have passed into the bladder, generally requiring an operation for its removal.

Dr. J. W. Irwin had been consulted by a lady who had been suffering for seventeen years with an affection of the bowels characterized by shooting pains in the colon, especially about the sigmoid flexure. It had been necessary for her to take opiates for the relief of pain. On examination of the rectum a safety-pin, two and a quarter inches in length, was found in the bowel, both ends closed and corroded by the action of the intestinal juices, etc. The pin was supposed to have been swallowed seventeen years before, when her last child was young, as then she was in the habit of putting pins into her mouth, although she had not remembered the circumstance.

Dr. C. Skinner (Proposed Operation for Removal of a Gold Crucifix, having been in the body nineteen years): I had a young man twenty-two years of age under observation, who, when three years of age, had swallowed a gold crucifix, probably about two inches in length, the cross piece being about an inch long. The stools were watched for months, but the crucifix never passed. He had been suffering for the last three or four years with pain in the region of the gall-bladder. The sensation is identical with what can be produced by making moderate pressure with the finger upon the surface. No symptoms were referable to the liver; no dysentery, and nothing that would indicate obstruction of the gall-bladder. The liver on palpation seemed to be a little enlarged.

*Stenographically reported by C. C. Mapes.

DISCUSSION.

Dr. Vance had seen the report of a French surgeon, in which he detailed a number of cases similar to the one reported by Dr. Skinner, together with one he had operated upon, where a silver fork had acted much like the gold cross, and causing about the same symptoms. It was taken from somewhere near the cecum.

Dr. A. M. Cartledge believed, if Dr. Skinner would anesthetize the patient, by deep palpation he might be able to locate the foreign body more definitely, and then an operation would be justifiable.

The essay was read by Dr. J. W. Irwin; subject, The Dangers of Infection by Personal Contact with Diseases not regarded as Actively Contagious or Infectious.

The author said in the main: . . . The danger of certain insidious diseases being transmitted by contagion or infection before Koch's discovery was too little regarded by physicians. . . . Now the importance of prevention is being more fully appreciated.

Another important and more recent discovery has been found in the fact that there are certain disease germs which do not live in the normal air, and others that do live and thrive in it. Whether or not this peculiarity applies to any of the germs found in the diseases of the air-passages I have seen no mention made of it. . . .

There are many diseases of the air-passages, indeed nearly all of those affecting the mucous membranes, that are now recognized as contagious or infectious, as well as the more insidious disorders which affect the lungs. Contact with these diseases renders the subjects more liable to be infected by them. Children sleeping together in the same bed often convey the seeds of disease to each other through the respired air, which a distance of a few feet from each other might have prevented.

Imagine, by way of illustration, two persons occupying the same bed, one of which is sick and the other is well; the well one is inhaling the breath as it leaves the nostrils of the sick, warm and laden with its millions of disease germs, and it will be readily understood how even insidious diseases not actively contagious or infectious may be transmitted to others. There are few physicians who have not been brought face to face with the sad scene of a house deprived of its most useful member for the want of precaution against those insidious germs which were conveyed from the lips or in the respired air from the lungs of a

bed-fellow who was the victim of consumption. It is, therefore, no longer any surprise to find that the husband or wife has become the subject of consumption after sleeping in the bed together, one of them being a victim of that insidious malady which knows no foe.

The remedy for this evil suggests itself, and it has already received some recognition abroad. Do away with the use of double beds and replace them by single ones furnished with separate clothing. The same room may be occupied by the husband and wife, and the beds may be placed near enough to each other for companionship. This arrangement of the beds will cause the poisonous products of the exhalations of persons to become diluted and changed by the air, and rendered less injurious to health when again inhaled. The advantages to be derived from the use of single beds will become apparent for reasons other than the prevention of disease. The arrangement will, in most cases, tend to preserve that sense of delicacy which closer contact sometimes dulls.

Again, when persons are fatigued by overwork or mental worry which give rise to insomnia and cause them to become restless and roll about, or when necessity compels them to leave the bed, the companion will not be awakened or otherwise disturbed. There are many other disagreeable features which annoy sensitive and wakeful people who occupy together double beds, such as heavy breathing, snoring, and other strange respiratory sounds, which distance would render much more endurable. Late or irregular hours on the part of a companion for retiring often awaken the sleeper, and his sleep is over for that night. . . .

DISCUSSION.

Dr. Cartledge: I wish to commend the idea advanced by the essayist in regard to single beds. Of course this was suggested long before Koch discovered the tubercle bacillus, and I think physicians, at least the majority of them, recognized the infectious principle of consumption in such cases as the doctor refers to—cases, for instance, where a husband or wife died of consumption, and in a year or so the other would follow without the last having had a predisposition to the disease by inheritance or otherwise. Such cases have been so numerous that it is certainly not a coincidence. In the present light of bacteriological knowledge as to the infectious character of tuberculosis, it seems to me that this is a very important subject. Physicians should be particular to warn their patients about the dangers of sleeping together, especially

if one of them is already affected with the disease; just as careful as we should be in looking after the water supply, if not more so. It seems to me not only possible, but extremely probable that a person sleeping for a year or two with another who is the subject of chronic tubercular disease of the lungs would almost certainly contract such disease, unless the resisting powers of the individual were unusual. Of course it might be three or four years developing to such extent as to become progressive or aggressive, and to cause death, but it seems more than likely that this will be the inevitable result. We know that a person may be affected with tuberculosis, for instance, for several years, without the disease manifesting itself in an active way. Certainly a healthy person should never sleep with a consumptive, and I believe we should go further than this, and advise that no two persons should sleep together. We know that children are often crowded in a bed, three or four together, regardless of their condition of health or consumptive tendencies which might be productive of serious results. I believe that we have all been very derelict in this matter in the past.

Dr. Wm. Bailey: While I commend the idea of separate beds, for special reasons I would go a little further than this, and would commend different apartments as well. I think the essayist and the speaker following are both unfortunate in taking the disease for illustration, phthisis pulmonalis. If they will consider a little more closely the history of the tubercle bacillus, they will agree, when their attention is called to it, that the danger is not in the respired air; it is not in the fresh sputum, but that the germ goes into the atmosphere after being expectorated and after the sputum has dried. Then infection occurs from the bacilli contained in the atmosphere, and breathed in that way. So really the danger from the consumptive is not in breathing his breath, but it is being in an apartment where he is in the habit of expectorating, the sputum drying, then entering the atmosphere, so that the apartment is the infected place, and not the atmosphere immediately coming from his lungs. It is not the fresh sputum that is dangerous; it is the habit consumptives have of expectorating over every thing in the room, and that not being destroyed. We ought to go further than this with tuberculous patients, and destroy all sputa coming from them, so as to destroy the possibility of contagion.

A consumptive's apartment and the atmosphere in it becomes contaminated, and is dangerous, whether we sleep in it or not. Living in it in the day-time, not being properly ventilated, perhaps, after the

night, and the sputa being in different parts of the room, drying, and entering the atmosphere with the dust, it may be, after sweeping, etc., in this way the atmosphere is made impure. So far as this disease is concerned, I do not believe there is any history of the tubercle bacillus being found in the atmosphere as it is expired from the lungs. I do not think that can be demonstrated. The air coming from a lung, however tuberculous, does not contain the tubercle bacillus. It is in the sputa; but this, when it is fresh, is not the dangerous state, but it is, as I have already intimated, after it has dried and becomes pulverized, and in that way goes into the atmosphere. Hence I say I would go further and advise separate apartments under such circumstances as well as separate beds. I think it is a bad habit to sleep with sick people.

I have questioned whether it is right for very young people to sleep with very old persons. It is a question of very great importance. For instance, the habit of putting a child to sleep with its grandmother; there is something to my mind in that. In the olden times it was recognized that strength was imparted to the old by contact with the young, and if there has been energy given to one it has been taken from the other. I doubt, myself, if in a strictly sanitary point of view we ought to sleep in the same bed with other people or in the same apartment with them. Yet if every man who takes the tubercle bacillus into his lungs contracted consumption, it is my opinion there would be none of us left.

Dr. F. C. Wilson: I agree fully with Dr. Bailey that the danger lies not in the respired air, but in the contaminated atmosphere of a consumptive's apartments. While we recognize the minimum amount of danger from that source (respired air), in my own practice I have always cautioned patients to turn their backs upon each other when sleeping together. As far as the danger of breathing contaminated atmosphere is concerned, few of us realize how great that is, and to what dangers we are all exposed. Of course, in a healthy respiratory passage the danger is reduced to a minimum, not only by the resistive powers of the system, but because of the inability of the germ to penetrate the tissues. The germ is simply landed upon some mucous surface, and is dislodged and thrown off with the next expectoration.

Now there is a class of cases, the numbers of which met with in my work at the Chest Clinic, where I have been engaged for a number of years, have greatly surprised me. I have for the last ten or fifteen

years noticed a large number of cases where the bronchial glands were enlarged. The mass of glands situated just in the forks of the bronchial tubes, which in some way have become infiltrated, indurated, and enlarged, possibly degenerated—I say I have been surprised at the number of cases of that class that I have met with. It is a condition that vastly increases the danger we are all subjected to from the inspiration of a disease-laden atmosphere. This gateway of the lung is the point where germs would first lodge, and a current of air laden with them would impinge upon the bronchial tubes just about the bifurcation of the trachea. Of course, lodged at this point, if these glands were in a degenerated condition they would form the very best possible soil for the propagation and multiplication of these germs.

I say few of us realize the danger that patients are subjected to in the large amount of poison in the atmosphere that we meet with every day. We see patients going about the streets expectorating upon the pavements. Of course that mass of expectoration dries, and we have it wafted up in the form of dust particles floating in the air or carried by the atmosphere. When we think of an estimate I have seen somewhere, that a well-developed tuberculous patient will expectorate more than a million of these tuberculous germs in every twenty-four hours, the computation astounds us when we attempt to compute, even in the most approximate way, the number of germs that we meet with in the atmosphere. Of course in the general atmosphere this is reduced to a minimum by dilution with the entire atmosphere. When we come to think of the wards of hospitals, where we find a dozen or more patients crowded in one room, which is perhaps badly ventilated, and in which are kept scores of other patients suffering from other diseases, the aspect is appalling. I am satisfied that in our own hospital I have seen case after case develop in the general medical ward in which were treated consumptive patients. I have seen patients enter that ward for other diseases whose lungs were entirely free from any infection, yet they have become infected, I am satisfied, simply from breathing the atmosphere of the ward.

Dr. Skinner: The subject under discussion is certainly a wonderful one for future thought and practice in every line. I suppose we all advise the course indicated by the essayist, but when we come down to the practice of the matter I do not know that any of us have succeeded in getting our patients isolated. They make all sorts of excuses. Take, for example, diphtheria—how difficult it is oftentimes to get mothers

and fathers to remove other children from the house when there is one case of the disease in the family. They will not do these things, especially when it comes to separating husband and wife. I think we all see cases more frequently develop in tuberculous families where the patients are members of the family. The healthy ones have been thrown intimately with the sick ones. This is not so much from street contamination as from house contamination. I do not think it depends so much upon the air they breathe from one to the other, but it is contagion gotten from the infected condition of the body of the patient who has tuberculosis. They can not help but get the sputum upon the bedclothing, where it dries very rapidly, and by being constantly thrown with a case of that sort the danger of infection is much greater, bringing back the importance of separating sick people from each other. It is indeed appalling to think of the dangers we are exposed to on the street, in public conveyances, railroad trains, etc.; but after all it seems to me that we can trace the greater number of these cases back to families and to the sleeping-chambers. Tuberculosis is a disease that we have lost control of, for the simple reason that we can not get people to realize the dangers. I always insist upon the use of sanitary cuspidors; if none other are available, a wooden or paper box filled with sawdust, which can be burned every day, never allowing the sputa to become dry. Further, I never allow napkins, handkerchiefs, etc., used by a tuberculous patient to be used by any other member of the family. I think this whole subject is wonderfully full of thought, and one that we can not talk or write too much about, can not act too much upon—separating sick people, as well as those who are not sick, from each other.

Dr. Vance: I believe that the idea of people sleeping together might be done away with to a certain extent by urging the separation of children, and educating people up to this idea. This is followed more or less in some countries.

Dr. Irwin: I selected consumption only as an illustration. I alluded to the fact that there were few diseases of the mucous membranes of the throat that were not recognized now as contagious or infectious. Close contact is conducive to the development of these disorders. I used consumption as an illustration, because we have frequently met with husband or wife the subject of consumption. If one die or become affected with the disease, it frequently develops sooner or later in the other.

Now the question that Dr. Bailey raises in this connection I recognize as one that we are a little in the dark about; that is, that the germs of consumption have not been found in the respired air of the consumptive, yet this does not prove that the germs do not exist in the respired air. One thing is certain, the husband who sleeps with a consumptive wife is very much more liable to take the disease than another member of the family. If the dust of the room contained the seeds of the disease from the dried sputa, we would naturally expect that the chambermaid who cleaned up the room and inhaled this dust after sweeping would be the one who would suffer most, as no such occurrence takes place in presence of the husband.

Now let us suppose that there is no such thing as inhaling the tubercle bacillus fresh from the lung of a consumptive, there is something else we must consider. We have contact with the lips and the toxalbumens and their poisonous effects to contend with, which tend to weaken vitality and prepare a suitable soil for the reception of disease germs. Certain it is that this must be the case, because the husband or the wife is the one to take the disease rather than other members of the family. On these grounds I made the statements, realizing what Dr. Bailey has said to be true, that the germs of the disease have not been found in the respired air.

The question of isolation is one of the greatest importance. There are few houses large enough to accommodate every member of the family by putting one in a room, but the time may come when the good work begun by sowing seeds in that direction will enable people to have houses of sufficient size and so arranged as to accommodate all members of the family in that way. The further we keep away from disease elements the less liable we are to be affected by them: this is certain. Certainly with single beds and separate clothing we begin a work of reform that will be shown to have a good effect. Better results might still be shown, perhaps, by putting the beds further apart, and separate rooms would be more advisable, and the statements I made were based principally upon these grounds.

H. A. COTTELL, M. D., *Secretary.*

THE LOUISVILLE CLINICAL SOCIETY.*

Stated Meeting, January 2, 1894, Dr. P. F. Barbour, Vice-President, in the chair.

Dr. W. H. Wathen presented a pediculated uterine fibroid weighing twenty pounds. The tumor was of fifteen years' duration and had gradually increased in size till it caused serious local disturbances. The urine was examined before the operation and pronounced normal, with the exception of a specific gravity of 1.030. The operator usually had the urine examined before an operation by his chief assistant, Dr. Frank, but in this instance the analysis was made by an interne at the infirmary, and being examined at night was probably not reliable. Chloroform was first administered, but shortly after changed to ether, so that five sixths of the time the patient was under the influence of ether. During the operation the pulse-rate became 130, whereas before the operation it was normal. Twenty minutes after the operation the pulse was normal again. Next morning the temperature was 102° F., pulse 120, urine scanty. This condition gradually grew worse until the next morning when there was complete anuria, the patient dying at ten o'clock that evening. There were no convulsions and no symptoms of sepsis; the abdomen being even flatter than immediately after the operation. The examination of her urine before death was made by Dr. Frank: Specific gravity, 1.030; reaction, acid; color, reddish brown; albumen, one eighth by volume; urea, two per cent; casts, fatty, finely granular, hyaline. It was thought that the pressure of the tumor had caused chronic nephritis, and that the ether had acted as an irritant and brought about suppression of urine by causing acute hyperemia.

DISCUSSION.

Dr. J. W. Irwin said he could he could not understand how pressure of the tumor upon the kidneys, protected as they are, could have caused nephritis; and thought it strange that no evidence of nephritis existed prior to the operation. The specific gravity of the urine, or even hyaline casts, especially as there had been no convulsions, would hardly lead to so sudden a death after the administration of ether. The last examination of urine certainly threw no light upon the nature of the trouble. The doctor thought it might have been a case of acute nephritis, but certainly not chronic.

*Stenographically reported by C. C. Mapes.

Dr. J. A. Ouchterlony said the case is defective in one respect, namely, that it does not state what was the character of the casts. If the casts were of a character that would indicate chronic nephritis, of course it alters the case. Simple hyperemia of the kidney does not give rise to a temperature of 103° F.

Dr. Wathen, in conclusion, said that the report of Dr. Frank stated fatty, finely granular, and hyaline casts were present, which would indicate previous trouble in the kidneys. He felt certain the kidneys caused the trouble, there being no surgical shock after the operation. As to the kidneys being protected from pressure, he could not agree with Dr. Irwin, but stated that they might be badly injured by the presence of a fibroid tumor of the uterus, or any solid or even cystic tumor in the abdominal cavity.

Dr. W. O. Roberts reported a Tracheotomy for Removal of a Button. The operation was performed on a child thirteen years of age, six days after swallowing a button three quarters of an inch in length by one quarter inch in width. When the patient would cough the button would come up in the larynx and could be plainly seen, but could not be grasped. A free incision was made dividing four rings of the trachea and the button removed without any difficulty. The wound was closed by passing a suture through the integument and tissues down to the trachea, with the exception of a small point at the lower angle. No trouble followed the operation, and the patient made a perfect recovery.

The essay was read by Dr. P. Guntermann, subject, Erysipelas. [See page 168.]

DISCUSSION.

Dr. Wm. Cheatham: I do not agree with the essayist that the diagnosis of erysipelas is always very easily made. I have seen a great many cases where there was an abscess of the tear-sac which had been diagnosed as erysipelas. My experience has been that it is quite common for physicians to make diagnoses of erysipelas in abscess of the tear-sac when there is no erysipelas.

Dr. C. G. Lucas: I remember, about two years ago I had a case of erysipelas involving the left forearm and part of the arm, and in the treatment I used gauze saturated with 1 to 500 bichloride of mercury. In addition to that I had read somewhere, that where you have erysipelas, particularly of the extremities, by passing an adhesive plaster upon each edge it might be confined. I tried the plaster in this case

and found it succeeded very well. It seems to me that some persons are peculiarly susceptible to erysipelas.

Dr. A. M. Vance: I have had a great many cases of erysipelas to treat, and have found that the use of the alimentary canal as a drain to the general system acts as a valuable aid in keeping down the high temperature, also seeming to aid in the rapid cure of the disease, therefore I have been in the habit of giving salines with considerable regularity. I have always used whisky internally, and locally I use glycerine and carbolic acid. This applied often, every day, I have found in most cases to arrest the spread of the inflammation, seemingly to abort it and keep it within its bounds. I use a small amount of carbolic acid in glycerine, not more than one part in one hundred, and apply it on antiseptic gauze. It seems that the affinity glycerine has for water deprives the tissues of fluid, and in that way bleaches them, making it a valuable antiphlogistic locally. I believe, if there is a specific for erysipelas, we have it in carbolic acid. I do not think I have ever seen a case of erysipelas die, and I have had a great many.

In my experience for the last ten years I have noticed how seldom we see erysipelas following wounds that we make. It is an uncommon thing, I believe, now to have a case of erysipelas in wounds made by the surgeon, while years ago such cases were not infrequent. This is evidently entirely due to the proper cleansing and preparation of the patient beforehand.

Dr. J. M. Krim: I have a number of cases of erysipelas convalescing now. As far as the antipyretic treatment is concerned, I do not believe it does any good. Like Dr. Vance, I think we can get better results by letting the alimentary canal do the work. The administration of salines in my experience has done the most good of any internal medication. As to local treatment, I believe that carbolic acid is the next thing to a specific, although I have had very good results during the last year or two with a preparation called campho-phenic. It is more soothing than carbolic acid alone. The preparation consists of a combination of carbolic acid and camphor. I use it with an equal proportion of liquid alboline, so as to prevent the too frequent application. Used in these proportions, and applied with a sponge or with any thing soft, application will not be necessary more than once every two hours, but with carbolic acid and water it would be necessary to make more frequent applications. It protects the skin and prevents the itching which is characteristic of erysipelatous conditions. Consti-

tutional treatment I do not think amounts to any thing as far as superficial erysipelas is concerned. Where there is a phlegmonous condition of course that requires constitutional treatment; but salines are always indicated.

I want to refer to a couple of cases where the patients had hay-fever, and, contracting erysipelas, it seemed to destroy that condition which had previously existed. I have observed this in two cases, that as soon as erysipelas developed there was a disappearance of the hay-fever. One case is just convalescing now. I saw him in the first attack two years ago; he was a periodical sufferer with hay-fever, and was compelled to leave town. After taking erysipelas he had no further trouble with hay-fever, and has another attack of erysipelas from which he is just convalescing. I believe that erysipelas may have some influence in doing away with hay-fever.

Dr. Ouchterlony: I am very much gratified, having listened to my friend Dr. Guntermann's paper. It is exceedingly practical and to the point, and brings up a number of interesting practical thoughts. In the first place, as to the classification of the disease: Of course we are all aware that there is hardly any disease which presents itself under more numerous aspects than erysipelas, so much so that one is often tempted to ask whether an individual case really is entitled to be considered as erysipelatous in its nature. The variety alluded to by Dr. Guntermann, "erysipelas fugax," I can hardly believe to be a genuine erysipelas. This variety is described by older dermatologists as erythema fugax, which comes suddenly, and goes as quickly as it came, and while disappearing and as long as it lasts is lacking in the chief characteristics of an infectious disease. The cause of erysipelas has been considered to be independent of micro-organisms, but I do not think it is. Most recent observations tend to show that it is due to the streptococcus pyogenes aureus. The fatal termination that is so likely to occur in persons of advanced age is also observed in subjects of a very tender age. That is an important practical point. I do not think that in erysipelas occurring in the first two weeks of life the patient ever gets well. At least that is the general impression, and I am sure in my own practice I have never known of a case of infantile erysipelas occurring during the first two weeks that terminated in recovery.

As to treatment: I am reminded by the remarks of my friend, Dr. Vance, of a practice that prevailed many years ago in the Demilt Infirmary, New York, introduced by Dr. Sayre. His rule was, in cases

of erysipelas of the lower extremities, which was the most common seat of the trouble in the laboring class that constitute the patients of that infirmary, to make a free incision from the knee down to the ankle, and then to administer drastic purgatives. The rule was to make one long, deep incision, then give the patient a dose of calomel and jalap, 10 gr. calomel and 20 gr. jalap. The treatment that I have generally adopted has been identical in principle with the saline treatment mentioned by Dr. Vance. I generally use a simple protective with carbolic acid; benzoated oxide of zinc ointment is a very serviceable preparation in this affection.

It is said that the micro-organisms of erysipelas are found in greatest abundance in the periphery of the erysipelatous area; that in the center there are comparatively few, but at that point where the disease is extending the streptococci are found in greatest abundance. And I suppose it is for that reason that injections at those points have been made of sulpho-carbolate of zinc and other like substances with a view of destroying the septic agents and preventing the extension of the disease.

Dr. P. Guntermann: I agree with Dr. Cheatham, that abscesses of the face, particularly about the eye, and swellings coming on from gum-boils or something like that, are very frequently mistaken for erysipelas.

I do not believe that in all cases purgation is the treatment. I think, however, that it is always well to pay close attention to the bowels and kidneys.

As to erysipelas fugax, I simply inserted the word "fugax" in parenthesis in my paper, and did not intend it as a classification.

I believe that a simple dry application is very much better than any wet application, at least that has been my experience. Also, in a great many cases I have treated I never succeeded until I perfectly saturated them with an iron preparation. I use tincture of iron neutralized, because it makes a fairly pleasant drink diluted with water.

Dr. Cheatham (Acute Edema of the Larynx; Intubation): A man, fifty-nine years old, was brought to my clinic the other day during my absence, and was sent around to my office. He suffered very great difficulty in breathing. I was busy at the office, but as it was an urgent case I saw him at once, and found it to be one of acute edema of the upper part of the larynx, and referred the case to Dr. Dugan, who was at that time holding his clinic at the college. There was a

very large cicatrix of the pharynx, which indicated to me that the patient had had syphilis, which proved true. Dr. Dugan did a tracheotomy to relieve the difficult breathing; after the patient recovered from the anesthetic he walked home. The second day afterward I went to see him, and found his breathing very difficult, although the trachial wound was open. I had a small tracheotomy tube with me, and inserted it, but it did not seem to afford any relief. I then decided to do an intubation, but there was some danger in this procedure on account of the edema; I feared it might overlap the intubation tube and cover the opening. I took the largest size tube used for intubation purposes and inserted it without any trouble until it came in contact with the tracheotomy tube, when, of course, it would not go any further. I removed the tracheotomy tube, and could then see the intubation tube through the wound in the trachea. As it was a very long tube it extended some distance below the tracheal wound. The patient has had no trouble in breathing since; the tracheal wound has about closed; no sutures were used. I have had to scarify the edematous part two or three times, and it is gradually decreasing in size under this scarification, inunctions of mercury, and iodide of potassium in progressively increasing doses.

At first I was afraid it was not a case for intubation, on account of the edema of the throat, fearing, as I stated before, it might overlap the head of the tube and in that way cut off breathing. But it was perfectly successful.

Dr. Ouchterlony (Ehrlich's Test): We are all quite familiar with the fact that the diagnosis of typhoid fever in the early stages is often a matter of difficulty, and for that reason any thing that tends to enable us to make a positive diagnosis in the early stage of this disease must be of value. In this connection I wish to call attention of the Society to what doubtless you are all familiar with, namely, Ehrlich's test. It never responds save in typhoid fever and in acute milary tuberculosis and in some acute inflammations. Acute milary tuberculosis is usually easy enough of diagnosis. Inflammatory affections are attended with such very characteristic symptoms and physical signs that there is no difficulty in recognizing them. But typhoid fever is sometimes obscure in its beginnings. Of late I have made use of the test in a number of cases, and it so happened that they all developed under such circumstances as to make the diagnosis obscure, and but for this test I would

have been unable to make a positive diagnosis until several days later. The test is as follows:

"1. Saturated solution of sulphanilic acid in a solution of 50 c. c. to 1,000 c. c.

"2. A one-half-per-cent solution of sodium nitrite.

"A quantity of urine is placed in a test-tube with an equal quantity of a mixture of solution of the sulphanilic acid, 40 c. c., and the sodium nitrite, 1 c. c., the whole being thoroughly shaken. One cubic centimeter of aqua ammonia is then allowed to flow gradually down the side of the tube, forming a colorless zone above the yellow urine, and at the junction of the two a deep brownish-red ring will be seen, if the reaction is present. With normal urine a lighter brownish ring is produced without a shade of red.

"The color of the foam of the mixed urine and reagent and the tint they produce when largely diluted with water are characteristic, being in both cases of a delicate rose-red, if the diazo-reaction be present, but if not, brownish yellow. It may be present before the rash appears, on the sixth day, and has been found as late as the twenty-second."

T. C. EVANS, M. D., *Secretary.*

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Starvation in London; The Medical Directory; A Year's Sanitation; The Health of the Navy; Result of a Medical Congress; The Year's Work of a London Coroner; New Laboratories at the Institute of Chemistry; Quinine in India; A Case of Hydatid Cyst, etc.

According to a return issued concerning deaths in the administrative county of London during 1892, upon which a coroner's jury returned a verdict of death from starvation or death accelerated by privation, the number was thirty-one.

According to the new Medical Directory this country is now blessed with one thousand and thirteen doctors more than it had last year. Five hundred and twenty-five names disappeared from the list. In London the number is five thousand five hundred and ninety, an increase of one hundred and eighty-three. It is proposed to stop this flood by adding a year

to the curriculum of study and making the examinations more stringent. With all this glut of qualified men, the army can not get enough of them, and it is thought that if the projected reform were carried out the service would have still greater difficulties in getting its complement, as under existing regulations gentlemen are chary of entering the Medical Department.

Addressing the members of the Sanitary Inspectors Association assembled in London, Sir B. W. Richardson confessed that no great advance had been made in sanitation during the past year. With regard to the bacteriological movement, it had to some extent died out. For his part he was never one to make too much of it, for the wonders it was going to do for consumption, etc., still remained undone. The cause of enteric fever was now distinctly traceable to bad water, and in America alone it was reported that no less than fifty thousand deaths resulted from an epidemic of this description. The fact that enteric fever was not contagious was first discovered in 1846. It was then separated from typhus, to which class it was until then supposed to belong. The effects of the Parish Councils bill would be momentous in character, and would entirely change the great work of sanitation. The necessity for a Ministry of Health was then suggested by the speaker, who favored a permanent official and bureau rather than a political one, who would of necessity leave his office when his party were not in power.

The statistical report of the health of the navy, which has just been issued, states that the returns for the total force may on the whole be regarded as very satisfactory. The aggregate number of cases of disease and injury returned during 1892 furnished a ratio of 934.39 per 1,000 of the mean force, which is the lowest recorded since these reports were first published in their present form in the year 1856. The greatest improvement has been on the Mediterranean station, and especially has there been a marked decrease in the number of cases of fever. The total force in service afloat in the year 1892 was 58,330 officers and men. The total number of cases of disease and injury entered on the sick list was 54,503, which is in the ratio of 934.39 per 1,000, being a decrease, compared with the previous year, of 15.6 per 1,000, and a decrease of 62.19 per 1,000 when compared with the average ratio of the last five years. The average number of men sick daily was 2,431.84. The number of days' sickness afloat in the total force gives an average loss of service from disease and injury of 15.25 days for each person. The number of deaths was 326, which gives a ratio of 5.58 per 1,000. The lowest sick-rate was on the North American and West Indian station, and the highest on the East Indies station. Compared with 1891 there was an increase in the death-rate on the Home, North American and West Indian, and West Coast of Africa and Cape of Good Hope stations, and a diminution on all the other stations.

Dr. Macdonald, the Coroner for Northeast London, has forwarded to the Home Secretary his annual return of inquests held by him in the County of

London. The total number was 1,130, of which 651 were males and 479 females. It is worthy of note that only 34 deaths occurred of persons between the age of 16 and 25 years, and of these 24 were due to accidents. Two females reached the age of ninety-two years, and both died from the effects of falls. There were three cases of murder and forty-six suicides. The females mostly committed suicide by drowning. Twenty-eight bodies of newly born children were found in the street, but in only one case was a verdict of willful murder returned.

This is how the well-known Professor Valledor speaks of the recent Medical Congress on Tuberculosis held in Paris: "Synthesis of the Congress, unfounded theories, empty affirmations, conclusions *nil*, practical results equal zero."

Professor W. A. Tilden, F. R. S., opened the new laboratories of the Institute of Chemistry of Great Britain and Ireland recently. Much care has been expended on the construction of the new buildings, which appear to be admirably adapted for the purposes for which they are designed. Professor Tilden, in declaring the laboratory open, explained that the Institute insisted upon a course of training extending over three years, at the end of which time a student could become an associate if he had satisfied the examiners in the various branches of study prescribed. Another three years' study was necessary before an associate could become a fellow of the Institute. There were now seven hundred and thirty-one fellows, one hundred and four associates, and nearly two hundred registered students.

Some thirty years ago the Government of India were induced by the terrible mortality among the natives, infants and adults, to make strenuous efforts to mitigate the evil. Cinchona plantations were established, with a view, in the words of a resolution passed at the time, "to put the only medicine that is of any use in the cure of the commonest and most fatal of Indian diseases within the reach of the poorest." It is now stated that since January last any individual of the seventy-one millions who form the population of Bengal can obtain a dose of quinine at the nearest post-office for exactly one farthing; and to show the extent to which the native population has availed itself of this boon, it is only necessary to say that in September one hundred and twenty thousand of these five-grain packets were served out in Bengal. The success of this scheme in Bengal is about to lead to its adoption in other provinces.

Pulverizations of chloride of methyl have been recently applied to seventy cases of painful affections, such as neuralgia, rheumatic pains, etc. With a little attention and experience it is said all secondary effects, such as erysipelas, lymphangitis, gangrene, etc., may be obviated. As for the bullæ formed on the track of the pulverization, it suffices to previously rub the skin with glycerine or vaseline in order to prevent their occurrence.

At the Clinical Society of London Dr. Tyson introduced to the meeting some interesting notes of a case of suppurating hydatid cyst of the liver, which he had opened through the chest wall. The patient, a female, aged

about thirty. came under his charge suffering from an enlarged liver, extending below the ribs for four inches. Temperature 101°. There was slight jaundice. A week later pleuritic effusion was discovered in the right chest, and the liver dullness extended to the pubes. Twenty-three ounces of serous fluid were drawn from the chest, and in a few days, upon aspirating the posterior part of the chest, an ounce of puriform hydatid fluid escaped. A month after being first seen by Dr. Tyson an incision was made in the eighth intercostal space posteriorly three inches in length. About an ounce of fluid at once escaped. This was followed by the appearance of an elastic swelling, the walls of which were stitched to the external wound. The swelling was then cut into, and thirty ounces of thick pus full of various sized "skins" escaped. The cavity was not washed out, a large drainage-tube six inches in length being inserted and left in. During the first three days after the operation about eight ounces of pus and "skins" passed, the cavity being daily washed out with boracic-acid solution. In nine days breathing became audible over the base of the right lung, the hepatic dullness disappearing. The discharge eventually ceased. There was never any sign of the liver contents entering the thoracic cavity after the operation. Dr. Tyson considered that such liver abscesses should invariably be opened through the chest wall posteriorly, being direct and well adapted to drainage.

LONDON, January, 1894.

WELL SIZED UP.—Rev. J. B. Hawthorne, of this city, said in his sermon, February 18th: "*If all the thieves were put into the chain-gang to-morrow, . . . it would shut the doors of real estate offices and thin the ranks of the legal and medical fraternities.*" In regard to the real estate business, Dr. Hawthorne probably speaks by the card, because he has been interested in some land schemes himself in a quiet way as a "side line" to the sacred ministry. He therefore knows the tricks of the trade. We do not know what motive or experience prompted the good doctor in his stricture upon the medical fraternity. The only relation that we know of which he has sustained toward the medical profession has been to receive free medical attention for himself and family whenever occasion required. Such insinuations, therefore, as the above come with very poor grace, and savor of the meanest ingratitude. And all of this, too, from a man, a minister, who owns or did own a large part of the stock in a patent medicine humbug, King's Royal Germeteur, which consists only of the addition of one pint of hydrochloric acid, costing twenty cents, to a barrel of water, costing nothing, the mixture selling for one dollar a quart! The doctor ironically selected for his text that morning, *He that is without sin among you, let him cast the first stone.* We think that this great evangel of all that is good and honest, who poses as the public censor, might make a personal application of his text with considerable advantage.—*Atlanta Medical and Surgical Journal.*

Diseases of the Chest.

Under the Charge of Ewing Marshall, M. D.

SEA AIR AND MOUNTAIN AIR.—Some strong suggestions to those required to select a place either for holiday quarters or in sending an invalid away to benefit the general condition.

This is one paragraph taken from one of the leading articles in the *London Lancet*, July 22, 1893. While the discussion is not limited to diseases of the chest, yet it deals with them more than with any thing else, so it was thought allowable to bring it in under this heading :

“Let us, in conclusion, indicate in a very general way the practical applications of these various points. Sea air and mountain air, both being tonic, will probably improve the health that is already fairly good. Children almost invariably do well at the sea-side, while mountain resorts are in general much less suitable for them. The same rule applies, though for different reasons, to the aged. Dyspepsia, especially if of hepatic origin, often does badly at the sea-side, but well in the mountains. Skin diseases, especially eczema, are often aggravated by sea air. It is not clear that mountain air has any effect upon them. Struma, in all its protean shapes, does notably better at the sea-side than anywhere else. The bracing marine resorts should usually be chosen. The existence of rheumatism, cardiac disease, or renal disease is usually a sufficient reason for placing a veto on the mountains. Bronchitis and emphysema do badly in the mountains, but often well at the more sheltered marine resorts. Obstinate insomnia is a contra-indication against both sea and mountain resorts, and calls usually for the sheltered inland resorts. Milder degrees of insomnia, however, are often much benefited both at the sea-side and among the mountains. Hysteria does very badly in the mountains, and often not well at the sea-side. Here, again, if any change be desired, the sheltered and moderately bracing inland resorts will probably be found to be most suitable. Incipient phthisis often does well both at the sea-side and among the mountains, and it is one of the most difficult points in therapeutics to choose wisely between the two. Without entering into this obscure question fully, we may safely say that if the phthisis be at all of a ‘strumous’ type sea air will be found most suitable; if of ‘catarrhal’ origin, the moist and sedative marine resorts should be tried, and if quiescent and limited, in a constitution that is not neurotic, the mountains may have the first trial.”

A CLINICAL LECTURE ON MITRAL STENOSIS.—(Sir Andrew Clark, *London Lancet*, Dec. 2, 1893.) The editor prefaces the report by an explanation that may be accepted as an apology for the inconsistency of the report. A man as careful and methodical as the late Sir Andrew Clark would scarcely

have made remarks so contradictory in the course of a clinical lecture otherwise showing such effort at exactness and care for the sequence of his remarks. The two passages referred to are as follows:

"Stethoscope over mitral area: On a more critical examination I hear two first sounds. The heart is what we call reduplicated. Some say the ventricles are not acting synchronously. Secondly, I catch a slight murmur with the second sound; and thirdly, *during or before the first sound I hear a rough murmur just antecedent* [italics ours] to the contraction of the ventricles and accompanying the contractions of the auricles.

"Secondly, the mitral valve is imperfect. How imperfect? We know that for two reasons—because there is a murmur in the mitral area, and that murmur *is not accompanying and consequent upon the first sound and is of a roaring character* [italics ours]. A mitral stenotic murmur should begin before and end with the first sound; when the murmur continues through the first sound and is heard loudest over the mitral area there is regurgitation through the mitral orifice."

RESTRICTING AND PREVENTING THE SPREAD OF TUBERCULOSIS.—Dr. Hermann M. Biggs summarizes his report to the New York Board of Health on Tuberculosis as follows:

1. Tuberculosis is a contagious disease, and is distinctly preventable.
2. It is acquired by direct transmission of the tubercle bacilli from the sick to the well, usually by means of the dried and pulverized sputum floating as dust in the air.
3. It can be largely prevented by simple and easily applied measures of cleanliness and disinfection.

The Sanitary Committee recommended that the Board adopt the following resolutions:

Resolved, That this Board urge upon the hospital authorities of the city of New York the importance of separation, so far as possible, in the hospitals of this city of persons suffering from pulmonary tuberculosis from those affected with other diseases, and urge that proper wards be set apart for the exclusive treatment of this disease; and be it further

Resolved, That the Commissioners of Charities and Correction be recommended to take such steps as will enable them to have and control a hospital to be known as "The Consumptive Hospital," to be used for the exclusive treatment of this disease, and that as far as practicable all inmates of the institutions under their care suffering from tuberculosis be transferred to this hospital.

This movement of the Board of Health of New York City is a splendid step in the right direction. It is a crying shame and a disgrace to this age of medicine, believing as doctors do in the contagiousness of tuberculosis, allowing cases of bronchitis, pneumonia, typhoid fever, and all other so-called medical cases to be treated in the same ward as the tuberculous patients. If a separate hospital can not be supplied, at least separate wards should

be used by tuberculous subjects. A small hospital located on one of the knobs to the south of Louisville would be a great place for tuberculous patients. Outdoor occupation allied with pure air would go far to aid any plan of treatment put into practice for their benefit.

VOMITING IN PHTHISIS PULMONALIS.—Divided into three classes, according to the cause: First, reflex; second, direct; third, mechanical.

1. Reflex vomiting is due to irritation of the pulmonary branches of the pneumogastric nerve.

2. Direct vomiting is brought about by an enfeebled digestion, with a more or less diseased stomach, resulting in a hyperesthesia of that organ.

3. Mechanical vomiting is the result of the violence and duration of the paroxysms of coughing, commonly brought on by an irritability of the upper air-passages, especially the pharyngeal and laryngeal regions.

Treatment. (1) In reflex vomiting sedatives are demanded, directed to the allaying of the irritation of the pneumogastric nerve; minute doses of opium, hydrocyanic acid, oxalate of cerium, etc.; also keep the patient absolutely quiet, and as nearly as possible in a recumbent posture.

(2) In direct vomiting, bland, unirritating diet; no concentrated alcoholic beverages; preferably liquid foods, and in severe cases they should be partially or even wholly predigested; bismuth, bicarbonate of sodium; minute doses of nitrate of silver; lavage, and in extreme cases prohibit the use of the stomach, and practice rectal feeding and inunctions of oil.

(3) In mechanical vomiting subdue the irritable pharynx and larynx by cocaine, cubebs, bromides, inhalations of steam loaded with any of the following: compound tincture benzoin, carbolic acid, oil of eucalyptus, etc.

ERGOT IN PNEUMONIA.—In selected cases of pneumonia ergot and aconite in the early stage will give benefit at the same time morphine has some limiting effect upon the trouble. Of course in very weak subjects and after the acute stage has passed away these depressants are not to be considered. With due respect to the great Hughes Bennett we disagree with his reply to the American who sought to call his attention to veratrum viride in the treatment of pneumonia. The great Bennett is reported as saying, "Well, what do you expect to do with veratrum viride?" The reply was, "To depress the heart's action and thereby diminish the pulmonary congestion." Mr. Bennett: "But suppose you don't want to depress the heart?" The story goes on to say that the American had no reply to make to the great man's question. Now, of course, in the average case certainly depressants are not needed and would be injurious, and likewise it is equally true that in a certain proportion of cases stimulants are never needed, and probably also retard complete recovery by causing too much action from the heart.

Abstracts and Selections.

THERAPEUTICS OF STATIC ELECTRICITY.—Dr. S. H. Monell, in an article published in the *New York Medical Journal* (January 20th), presents the following indications for the use of static electricity. The author remarks that the sphere of the therapeutic action of this form of electricity is sufficiently wide to be justly considered remarkable without proclaiming it a cure-all. Its chief field being found in conditions, either acute or chronic, which have to do with nerve action, muscles, and joints, pain, functional processes, and nutrition.

It affords the most certain and permanent relief for lumbago, sciatica, rheumatic and muscular pains.

Neuralgias of every kind seem to yield to it more speedily and permanently than to any other form of treatment. In the various types of head pains and in insomnia it is peculiarly efficacious.

No other agent equals static electricity in combating hysterical states and associated conditions. It furnishes our best method of treating functional nervous diseases.

As a general tonic and as a stimulant to depressed nervous functions it is of the utmost service, especially in neurasthenia and in old cachexias. As a means of improving the general nervous tone of patients it is without a rival.

Reflex irritation, peripheral neuroses, etc., yield in most cases to proper applications of this agent. Pruritus of various forms, the itching of eczema, etc., are cases in point.

Diseases of the scalp. Patients undergoing several months of regular static treatment usually find that their hair ceases to fall out in combing, and that the nutrition of the scalp improves.

Exudations, infiltrations, localized edemas, etc., are quickly resolved and absorbed under skillful static administration.

It usually surpasses all other forms of electricity in dealing with stiffened, contracted, or paralytic muscles, acute or chronic muscular deformities, and muscular spasm. The ease with which it will often conquer an obstinate case is one of the most surprising things in electro-therapeutics. Acute examples of these types not infrequently succumb to one or two séances of static.

In locomotor ataxia it will do more to relieve pain and maintain a degree of comfort than any other agent. Used in conjunction with galvanism, it may arrest the progress of early cases indefinitely.

It has given the most brilliant results in the treatment of hemiplegic, traumatic, and all forms of motor paralysis, and frequently restores com-

plete muscular power after all other measures fail. Paralysis of the sphincters, of the vocal apparatus, or of any part of the body, may be treated with better success by static than by other measures.

It admittedly holds the highest place in the treatment of chorea.

In gout and rheumatism its efficiency has been reputed great since the earliest history of frictional machines; even in rheumatoid arthritis it has won praises.

It is a powerful, painless, and effective tonic to the weakened muscles in lateral curvature of the spine; as a "massage" it is unequaled.

In dermatoses, especially those dependent for their origin upon neurotic or nutritional disturbances, it is either an all-sufficient remedy or a valuable adjunct to medical measures.

NEW YORK OBSTETRICAL SOCIETY.—Dr. Florian Krug read a paper on *The Futility of Spaying Women to Arrest the Hemorrhages Accompanying Uterine Fibroids*, and presented a uterus removed by celio-hysterectomy after castration had failed to relieve, and stated that his object in showing the specimen was to say a few words about the futility of spaying women to produce an artificial menopause. It is, he says, a fallacy to suppose the climacteric will arrest the growth of the tumors or stop the hemorrhage. The majority of his cases, where operation was indicated, had passed the normal time for the menopause. The statement in the text-books that we should guide our patients to the climacteric and all will be well, he says is false and should be eradicated. If nature fails to cure by this method, the establishment of an artificial menopause is still less entitled to our confidence. He concludes that a large number of fibroids give rise to few, if any, symptoms, and may never require operation; if they should, total extirpation is the only thing to be thought of. With the improved technique and the Trendelenburg position, the results are as good, if not better, than in a simple oöphorectomy. In the discussion which followed, the position taken by the author was not indorsed.

Dr. Polk read a paper on *The Removal of the Uterus in Disease of the Appendages*. In this paper he advocates total extirpation of the uterus and tubes when the ovaries were removed, because when allowed to remain it too frequently produced such after-symptoms as metrorrhagia, purulent discharges, exaggerated reflex disturbances, far in excess of those following the natural menopause. The sweeping nature of the paper was considerably modified by the statement that complete destruction of the ovary by cystic or purulent degeneration justified the removal of the appendages, but beyond this he recognized few conditions.

Dr. Frank W. Talley read a paper before the Philadelphia Obstetrical Society, entitled *Irrigation of the Non-puerperal Uterus*, and exhibited an instrument for the purpose, which consisted of a small cannula perforated at the end and sides, with two pieces of wire soldered to its sides to preserve a space between it and the uterine wall for the return of the injected fluid.

It is made the size of No. 15 French catheter. In addition for office work he advises a bivalve speculum, the lower valve of which is guttered and provided with a funnel, to which a tube is attached for drainage for use in office. He irrigates with water at a temperature of 110° F., containing one dram of bicarbonate of soda to the quart. This method he uses in endometritis, metritis, and subinvolution. Its use in a hundred cases had been productive of relief of symptoms due to congestion. The uterus must be allowed to thoroughly empty itself or colic will ensue.

A NEW METHOD OF CONTROLLING UTERINE HEMORRHAGE BY MEANS OF ELECTROLYSIS.—Dr. A. H. Goelet presented a portable galvanic battery and a number of electrodes to illustrate the method of checking uterine hemorrhage by using a copper positive pole, or by wrapping the ordinary positive pole with cotton dipped in some metallic solution. Dr. Gautier, of Paris, had popularized this method, and was the first to write about it in 1891, when he designated it interstitial electrolysis. The salt was decomposed, and the power of the elements in the nascent state was much greater on the bleeding parts and extended deeper than where the ordinary electrode was employed. Upon plunging the copper electrode into a piece of steak and passing a current of over one hundred milliampères for a short time, it showed an electrolytic effect which was indicated by a greenish tinge for some distance around it. The same effect took place upon bringing the electrode into contact with the bleeding surface of the uterus. This was valuable in all cases where an astringent should be applied to the mucous surface, as in endometritis, granular degeneration of the cervix, etc. Dr. Goelet cited a case where the copper electrode had controlled hemorrhage with one hundred milliampères when the curettement had failed. Quite often twenty-five or thirty milliampères were sufficient. The treatment could be repeated when the hemorrhage was not entirely stopped at the first sitting. He said that physicians had often failed to control hemorrhage on account of not having brought the electrode into contact with the entire hemorrhagic surface. This was very liable to take place where the presence of a tumor rendered the uterine canal tortuous.—*New York Journal of Obstetrics.*

THE AMERICAN PRACTITIONER AND NEWS.

"NEC TENUI PENNĀ."

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D. W. YANDELL, M. D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

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This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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JOHN P. MORTON & COMPANY, Louisville, Ky.

BEECHWOOD CREOSOTE IN A NEW ROLE.

The efficacy of beechwood creosote in pulmonary and gastro-intestinal troubles seems to be well established, and there are few physicians to-day who do not prescribe it in the early stages of phthisis pulmonalis and fermentative dyspepsias.

A new field for the operation of the drug appears to have been discovered by Dr. W. T. S. Cornett, of Madison, Indiana. In the Philadelphia Medical News of the 3d inst. the author gives at length and in detail the history of a case (in his own person) of paroxysmal tachycardia which was relieved by this drug.

The author, an octogenarian, has been the subject of rheumatism for many years; one of the results was chronic endocarditis, with paroxysms of tachycardia, occurring generally at night and at unexpected times. There would be a sense of heat, as of fever, and the pulse (normally 70) would run up to 120 or 130 beats per minute, the symptoms disappearing entirely in a few hours.

This condition lasted for twenty years, when the development of bronchitis suggested the use of the beechwood tar.

Under its use for a week or ten days the expectoration was relieved, the cough mitigated, and, to my surprise and gratification, the paroxysmal tachycardia had disappeared. The sudden cessation of this long-standing motor

affection of the heart can be attributed to nothing but the action of the creosote. I had for a long time believed that these paroxysms were caused by aortic regurgitation from valvular insufficiency, causing the heart to struggle for the relief of the distended ventricle; this being accomplished, the pulse would suddenly fall to normal. The action of the creosote in this case showed conclusively that the tachycardia was not caused by valvular insufficiency, but was purely functional. . . .

Under the use of creosote three times per day I have now had exemption for more than seven months, with the exception of a few slight returns when the medicine has been neglected. Cure, in the proper sense of that term, is not claimed in this case, but exemption is being purchased at so cheap a rate that it is nearly equivalent to cure. The relief is very great indeed.

The question now arises as to the *modus operandi* of creosote in the case under consideration. It is admitted that an answer completely satisfactory to this question can not now be given. The heart, after the attack of endocarditis, has been left in an irritable condition, from which complete recovery is perhaps impossible, especially in one of advanced age. Creosote is a tonic, and the most reliable intestinal disinfectant of which I know. It prevents fermentation in the stomach and intestines, and thus there are no poisonous products to be absorbed and taken into the blood, and there is high authority for saying that it combines with and renders innocuous poisonous products that reach the blood from other sources. "It is interesting to note that quite recent researches indicate that the good effects of the creosote, or guaiacol treatment of pulmonary tuberculosis, are due neither to the antiseptic (or development-hindering) properties of guaiacol, as some authors, including Guttman, the originator of the treatment, believe, nor purely to its stomachic and tonic virtues (as others have asserted), but to the fact that it forms compounds, eliminable from the blood in a dissolved state, with the toxic albuminous by-products of the activity of the tubercle bacillus. (Hoelscher and Seifert.) It is to these albuminoids that the fever, night-sweats, and disturbances of appetite, digestion, and general well-being must be ascribed, and with their removal or conversion into inert compounds, all these symptoms disappear." (See Helbing's *Modern Materia Medica*, 1893.) Creosote lessens the irritability of the bronchial tubes, and thus frequently relieves cough. Two thirds of the creosote that enters the blood is eliminated by the kidneys, and the lining membrane of the heart is constantly being bathed with blood holding the medicine in solution as long as the treatment is continued. . . .

The case is certainly very remarkable, while the *methodus medendi* of the drug as stated by the author is ingenious and ought be true.

Since rapid heart action and great vaso-motor disturbances are incident to phthisis, and since these symptoms are often ameliorated under

the creosote treatment, indication *a priori* might be shown for the drug in tachycardia from any cause. We are glad to see the field for the usefulness of creosote extended, but hope that it will never be made a cure-all as have been most other useful drugs.

THE STATE SOCIETY.

A note from the secretary on the next page reminds us of the fact that the time of the next meeting of the State Society is fast approaching. The place of meeting is Shelbyville, the time June 6th. The secretary informs us that the outlook for a meeting of unusual interest is promising. The Committee of Arrangements, of which our genial friend, Dr. J. M. Harwood, is chairman, will see that their brother doctors are given a Kentucky, if not a Bluegrass welcome.

A NEW MEDICAL JOURNAL.

Louisville Medical Monthly is the name of a new journal, published by the Louisville Medical Journal Company and edited by Drs. James B. Steedman and George M. Warner. In contents and style the new candidate for favor will compare favorably with its older compeers.

We give it hearty welcome to our table and exchange list, and wish it full success.

Notes and Queries.

KENTUCKY STATE MEDICAL SOCIETY.—At the last meeting of the State Society a resolution was adopted which dispenses with standing committees, and establishes in lieu thereof full discussions upon selected practical subjects, to be arranged each year by a committee appointed for that purpose. In accordance with this resolution the Committee on Special Discussions met recently in the office of its chairman, Dr. David Barrow, of Lexington, with a full attendance. Dr. H. K. Adamson, of Maysville, acted as secretary, and the permanent secretary of the Society, Dr. Steele Bailey, of Stanford, was present as an ex-officio member of the committee.

For the discussion on the first day of the coming annual session, the subject of Acute Lobar Pneumonia was selected. Dr. J. B. Marvin, of Louisville, was appointed to treat the subject as relates to its Etiology and Pathology; Dr. J. A. Lewis, of Georgetown, its Treatment. The discussion of these papers will be led by Dr. J. A. Ouchterlony, Dr. William Bailey, and Dr. P. F. Barbour, of Louisville.

For the second day the subject of Appendicitis was selected. Dr. A. M. Cartledge, of Louisville, was appointed to prepare a paper on its Varieties and Pathology; Dr. Fayette Dunlap, of Danville, on its Diagnosis; Dr. A. M. Vance, of Louisville, on Determination of the Question of Operative Interference; Dr. Horace Grant, Louisville, on the Operative Technique. The discussion of this subject to be led by Dr. L. S. McMurtry, Louisville, Dr. W. O. Roberts, Louisville, and Dr. J. N. McCormack, Bowling Green.

For the third day a discussion was provided on Contagious Eye Diseases and Blindness, with proposed legislation for their prevention, with papers by Dr. J. M. Ray, Louisville, Dr. W. M. Cowgill, Paducah, and Dr. John Oldham, Lexington; the discussion to be led by Dr. William Cheatham, and Dr. T. C. Evans, Louisville.

These special discussions are not intended to take the place of or interfere with the reading and discussion of voluntary papers, or the other customary exercises of the Society, but only to take the time formerly allotted to routine reports of standing committees, which gave but little change of subjects from year to year. The intention is for the discussions to be participated in generally by the Society after the several subjects are presented by the appointees. This change will very materially promote the interest of the proceedings, and bring before the Society important subjects of engrossing practical interest. The next meeting of the Society will be held in Shelbyville, at a date in May, to be announced by a committee composed of the President, Secretary, and the Chairman of the Committee of Arrangements.

FORMULAS: ECZEMA OF THE SCROTUM, VULVA, ETC. (Colombini) :

R	Zinc oxide,	10 grams ;
	Bismuth subnitrate,	10 grams ;
	Menthol,	1-3 grams ;
	Powdered starch,	1-30 grams.

When the application is intended for mucous surfaces the amount of menthol should be reduced.

DYSENTERY IN CHILDREN (Dr. S. S. Adams).—When the pain and straining are intense, relief may be derived from the following :

R	Cocain. muriat.,	gr. j ;
	Ext. ergot, aq.,	gr. x ;
	Ext. opii, aq.,	gr. ij ;
	Aristol,	gr. v ;
	Olei theobrom.,	q. s.

M. Ft. Suppos. No. X. Sig: One every two or three hours.

SOFT CHANCER (Carazzani) :

R	Hydrate of chloral,	grams 5 ;
	Camphor,	grams 3 ;
	Neutral glycerine,	grams 25.

The cures are effected in periods varying from two to eighteen days. A rapid suppression of the secretion, lessening of the local inflammation with regeneration of the epithelium.

HEADACHE (*La Med. Mod.*).—In obstinate headache due to neurasthenia or chlorosis, the following mixture is sometimes beneficial :

R	Antipyrin,	gr. iv ;
	Caffeine,	gr. ½ ;
	Hydrochlorate of cocaine,	gr. ⅙ ;
	Powdered opium,	gr. ⅙.

M. For one cachet.

CORYZA (Grellety) :

R	Betol,	gr. xxxvj ;
	Menthol,	gr. iv ;
	Cocaine,	gr. ij ;
	Powdered roasted coffee,	gr. xxiv.

M. Use as a snuff.

ACUTE BRONCHITIS: FIRST STAGE (Gross Medical College Bulletin) :

R	Potassii citratis,	drams ij ;
	Tinct. opii camph.,	drams iij ;
	Syr. scyllæ comp.,	drams iss. ;
	Syr. limonis, q. s. ad.,	ounces ij.

M. et Sig: One teaspoonful every three hours.

Special Notices.

METCALF'S COCAWEIN verdankt seine ausgedehnte Verbreitung, sowie überall geteilte Anerkennung verschiedenen Umständen, von denen die nachstehenden die bemerkenswertesten sind.

Vor allem zunächst dem zur Herstellung verwendeten Material. Verschieden von den meisten auf dem Markte befindlichen Erzeugnissen, die im grossen und ganzen sehr wenig oder gar keinen Coca enthalten, wird METCALF'S COCAWEIN von frischen Cocablättern hergestellt, ein Vorzug, der von jedem Arzte gewürdigt werden sollte, dem an der medicamentösen Wirkung seines Receptes gelegen ist.—Der zur Bereitung benutzte Wein ist ein vorzüglicher Traubenwein von ausgesuchtem Aroma, das seines Gleichen sucht.—Auf diese Weise vereinigt METCALF'S COCAWEIN nicht genug zu würdigende Vorzüge in sich. Die Thatsache, dass er die Wirkungen beider Ingredienzien in harmonischer Zusammensetzung verbindet, macht ihn zu einem Cocawein im wahren Sinne des Wortes. Er ist daher ein ausgezeichnetes Tonicum, ein sicheres Anodynum und ein willkommenes Nutriens.

METCALF'S COCAWEIN hat sich in Tausenden von Fällen als *ultimum refugium* bewährt. In Zuständen allgemeiner Erschöpfung, wie sie durch febrile Krankheiten hervorgerufen werden, hat dieser Wein Wunder gethan.

Fügen wir hinzu, dass dieser Wein von bewährten Chemikern hergestellt ist, die weder Mühe noch Geld gescheut haben, um einen Artikel von bester Qualität den Herren Aerzten im besonderen, dem Publikum im allgemeinen, zu offeriren, so dürfen wir überzeugt sein, dass "METCALF'S COCA WINE" sich täglich mehr und mehr Freunde erwerben wird.

OTTO HENGST, M. D.

BOSTON, MASS., October 26, 1893.

RECURRING GRIPPE.—I. N. Love, M. D., Vice-President American Medical Association, says: The history of epidemics is almost uniform in the direction of their extending over several years. Frequently the disease is endemic, becoming a definite part of every-day life, as witness diphtheria in many sections of the country. La Grippe is no exception. Appearing among us as it did several years ago, it returned the second year in a form more virulent than the first, producing effects far-reaching and uniformly demoralizing. Observing practitioners can not have failed to notice that during this summer and fall many cases could be explained by no other hypothesis than that they were affected either directly or remotely by the grippe. The possibilities are that the coming winter and spring will develop enormous numbers of these cases, cases affected *de novo* by the germ, if there be one, and cases that have never yet recovered from previous attacks with re-aroused disturbances due to the sudden and frequent changes of the weather. Feeling the importance of keeping open the excretory system of glands, and at the same time considering thoughtfully the rheumatic feature that accompanies these cases, no remedy would more promptly suggest itself to our mind than that of tongaline. Knowing as we do definitely the component parts, the combination naturally suggests antagonism to a locked-up condition of the glands, opposition to la grippe, neuralgia, rheumatism, nervous headache, and gout. We commend it earnestly and emphatically to the practitioners of the country at large to meet the conditions to which we have referred.

The attention of our readers is called to the advertisement of Robinson-Pettet Company, which appears in this issue.

This house is one of long standing, and enjoys a reputation of the highest character.

The preparations referred to we commend specially to the notice of Practitioners.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

VOL. XVII.

LOUISVILLE, KY., MARCH 24, 1894.

No. 6.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

DOCTORATE ADDRESS,

In the Medical Department of the University of Louisville.

BY J. A. OUCHTERLONY, A. M., M. D., LL. D.

Professor of Principles and Practice of Medicine and Clinical Medicine in the Medical Department of the University of Louisville. Knight of the Royal Swedish Order of the Polar Star.

Gentlemen of the Graduating Class, this is your day; to you it is a day of days. It marks an important era in your lives. However great the age you may attain, whether the future brings you joy or sorrow, prosperity or adversity, your memory will ever revert to this as one of those glorious days that can not die. It has brought you the reward of several years of hard work, the fruition of most cherished hopes.

The impressive act by which you have been admitted to fellowship in a learned, an honorable, a noble profession has also severed our pleasant relations as teachers and pupils; and now, addressing you as our professional brethren, it devolves upon me to say some friendly and I hope helpful words before we part, perhaps never to meet again.

With the approach of this occasion my thoughts have frequently recurred to the time when, like yourselves, together with many of my friends, I had just received the coveted degree of "Doctor in Medicine;" life's first great battle won, our hearts exultant with victory, our brains afire with ambitious dreams! And I am reminded that since that day, when on the fair page of youth Hope painted her enchanting picture of life with pencil dipped in the gorgeous tints of the future, thirty-three years have passed away.

To you, standing on the shore, the wide expanse of professional life is an unknown sea. Perhaps, then, an old sailor like myself, who has been buffeted by the waves so long and been so often tempest-tossed,

who has learned by experience both the necessity and difficulty of shunning the monster-clad Scylla while evading the Charybdean whirlpool, may be able to say something of profit to younger navigators.

Medicine is an art, a profession, a science, complex in its nature, far-reaching in its scope, varied in its relations. Naturally it must present aspects to the young, just commencing a professional career, quite different to those presented to men who long since have rounded the quarter of a century. It is to some of these aspects and the lessons they impart I would call your attention in a somewhat desultory fashion in the brief space of time at our command.

The changes in every department of medicine during these thirty odd years have been prodigious. The mere enumeration of them would be an encyclopedic task. They have been generally in an onward and upward direction. The scope of the science has been widened, the field of labor enlarged, greater accuracy in diagnosis, with improved methods of treatment have been productive of more certainty and greater success. Besides several other developments, hygiene, as an established science, has sprung into existence, and with it "Preventive Medicine," bestowing inestimable blessings upon the world.

While medicine as a science has become more exact, at all events in certain departments, and as its vast possibilities have been recognized, it has also become more and more attractive to men of great intellect and high scientific aspirations, so that we may say with truth, that at no time were so large a proportion of talented and able men found in the ranks of our profession as to-day; at no time in its history was the work so effective, the results so brilliant and numerous as now.

The physician of to-day, then, ought to be a man of culture, fit to associate on equal terms with men of intellect and education. The intimate relationship between the sciences is such that love of one evokes love of the others, and proficiency in one facilitates our progress in the rest. One whose studies are limited to medicine alone almost invariably knows very little medicine. Adverse circumstances may have denied to some the means of early and liberal education so necessary to a medical man, who in his professional ministrations is brought into close and confidential relations with the most cultivated and refined as well as with the rude and illiterate. But this deficiency may and should be amended by earnest effort at self-culture.

Many who have reached a high position in science and in the State did not begin their education until after they were grown-up men.

Velpeau, who rose to the highest rank in the profession and died a senator of the French Empire, was a blacksmith's assistant at twenty-one, and did not begin to acquire the rudiments of learning until after that age. Cato did not begin the study of Greek until the snows of eighty winters had silvered his locks.

In these days of frequent intercourse between different countries, and in this country with its polyglot population, a knowledge of foreign languages becomes almost a necessity to a physician, especially if practicing in one of our larger cities. Familiarity with German and French, at least so far as to read the current medical literature of these nations, is so easily acquired as to be within the reach of any one of ordinary intelligence and determination.

Thirty-five years ago specialists doubtless were found in our larger cities, but at that time specialism had not acquired that importance, had not reached that conspicuous prominence in the profession which it holds to-day, and which it is certain to retain. Specialism in medicine means simply division of labor. To it is chiefly due the marvelous progress of our science in recent times. Without such a division of labor it would have been impossible.

At the very beginning of your career specialism presents itself as perhaps the very first problem you will have to solve. It is a seductive vision. It offers the prospects of more speedy professional recognition, a larger share of practice, better remuneration, more reputation, less arduous labors, regular hours, undisturbed sleep, in one word, a more profitable and more comfortable life than that of the general practitioner.

No wonder then that many recent graduates start out with the intention of devoting themselves from the first to some specialty. But this, in most instances, will be found detrimental to healthy and symmetrical professional growth and development. A specialty in medicine should be taken up only after several years of general practice, and ought to be the outcome of a species of natural selection, by which the natural aptitude and inclination of the physician assert themselves; and special knowledge and skill in the management of the diseases of particular organs are the ultimate result. But this selection in one direction implies also exclusion so far as the diseases of other organs are concerned. One who claims a number of specialties, or boasts of practicing every branch of medicine and surgery with equal dexterity and success, may be set down as a charlatan, unworthy of confidence and

respect. The domain of medical science is so vast that no one can attain perfect mastery in all its branches.

One science only will one genius fit,
So vast is art, so narrow human wit;
Like kings, we lose the conquests gained before,
By vain endeavors still to make them more.

Doubtless it is possible to be a safe, all-around practitioner, and to be such must be the endeavor of most medical men whose lot is cast in sparsely settled regions of the country. But in order to rise above mediocrity, achieve greatness, fame, and fortune, one's powers must be concentrated within a more limited space.

Some fear the encroachments of specialism upon the domain of the general practitioner, and predict the not far-distant extinction of the class. These are needless fears and vain prognostications. The "family physician" is an institution that will never be abolished. What sweet and tender associations cluster around the word! The earliest friend of the children, next to the clergyman in the confidence of the parents; the sympathizing friend in sorrow and affliction, the wise counsellor, the trusted and beloved physician! The duties of this sacred office require great qualities of mind and heart. No greater tribute can be paid to the character of a physician than that he has faithfully and successfully performed them.

But, whether you engage in the unpretentious labors of a general practitioner or aspire to honor and distinction in some special line of work, one thing is certain, "It is not good for man to live alone." The physician, of all men, needs the rest, support, encouragement, and consolation, indeed all the blessed influences of wife and home; these are correlative terms. The wife makes the home; without the wife, though never so grand, it is merely a house, a domicile. A good wife is a good moral tonic. But little lower than the angels, she is often as a guardian angel to her husband. Many a man in our profession has owed his success to the helpfulness of his wife.

When envy's sneer would coldly blight his name,
And busy tongues are sporting with his fame,
Who solves each doubt, clears every mist away,
And makes him radiant in the face of day?
She who would peril fortune, fame and life
For man, the ingrate—the devoted wife.

With your chosen life companion by your side to help and to cheer you may brave the world.

The physician's life is one of hardest toil, taxing to the utmost his intellectual powers and bodily strength. Yet work is the aroma in which he recovers his youthful vigor. The last words of the great Velpeau were, "*Il faut travailler toujours.*" "We must work always." This is a good motto for us all. Without work we can accomplish nothing and enjoy nothing.

The truth is, only a physician can understand and appreciate the character and the amount of work that physicians do, the responsibilities with which they are burdened.

Mucius Scaevola said, "To do and to suffer great things is the part of a Roman ;" and his words apply with even greater force to men of our profession. Men must know that in this theater of human life it remaineth only to God and the angels to be lookers on.

"Let every man be occupied," said Sydney Smith, "and occupied in the highest employment of which his nature is capable, and die with the consciousness that he has done his best."

If constant and heavy demands are made upon the physician's intellectual and emotional nature, he is also strengthened and blessed by sympathy and affection equal to those he gives out.

It is especially among good women that the medical man finds his most appreciative and grateful patients, and the most enthusiastic and energetic friends. If you have earned the confidence and friendship of the good women of the community, your success is assured, for "the hand that rocks the cradle governs the world."

The appreciation patients often have for their medical adviser and their dependence upon him is finely illustrated in the following lines, penned, perhaps, by some tender, suffering, trusting, womanly spirit. They were given to me by a dear old friend, whom it was my privilege to attend for many years :

TO A PHYSICIAN.

Oh! watched for through the heavy hours
Of pain and weakness, what a gift is thine !
What a proud science, godlike and benign !
To pour on withering life sweet mercy's showers,
And on the drooping mind's exhausted powers
Like a revivifying sunbeam shine ;
For thy next smile what sleepless eyelids pine !
What sinking hearts to which the summer flowers
Can breathe no joy ! How many a day
I heard thy footsteps come and die away,
And clung unto that sound as if the earth,
With all its tones of melody and mirth,
To me had naught of interest, nothing worth
The brief, bright moments of thy kindly stay.

Few understand the genuine and sincere affection felt by physicians for their patients. About, with that fine insight he so often displays, says: "There is no more glorious victory than to snatch from death its certain prey, and to create a being anew whom disease had almost destroyed. Physicians know this pleasure; they attach themselves sincerely to those whom they have brought back from the other world, and have for them all the affection of a creator for his work." The brilliant Frenchman, however, did not realize that this sincere attachment of physicians for their patients is not reserved for those only who have been brought back from the other world.

In every true physician there is an instinct that impels him to assuage suffering and cure disease. Whether the patient be friend or foe, he extends to him the benefit of his profession, whose science, as Goethe has it, "keeps life in and keeps death out." On this point, again, About remarks: "Physicians care for their patients as the Newfoundland dogs draw drowning men from the water. It is a matter of instinct. The dog blindly saves the enemy of his master. The physician attends his own enemy as if he had an interest in saving him."

Yes, interest in the success of our work we have, but it is not the interest which springs from the hope of pecuniary reward nor any other selfish motive. The truth is, that the best work in our calling is done not from a sordid hunger for its emoluments, whether of money, rank, or fame, but from a sincere love of the work itself, and pride in performing it well and creditably. The moment a man begins to lose this "*esprit de corps*," this high-minded professional pride, and to find his reward in his pay and not in his work, that moment his work begins to deteriorate, and he ceases to meet with the highest success.

And success, after all, is what every one is striving to achieve. "It is success that colors all in life."

A desire to succeed in the work to which one has devoted himself is both natural and praiseworthy.

The secret of success is constancy to purpose. Some men are ever railing against fortune. They complain of their "bad luck," and weary the listener with the enumeration of their own merits and fine qualifications, which have been rendered futile by the injustice of the fickle goddess Fortune.

Le bien nous le faisons; le mal, c'est la fortune
On a toujours raison, le Destin toujours tort.

The men of luck are the men of brains.

The lucky man is the man of industry, knowledge, and skill.

True success is not an instantaneous event, but a process of gradual development, the legitimate result of causes that have slowly, silently, but steadily been in operation.

We are daily building up character, and in so doing we are also constructing our future. Hence the old proverb, *Quisque faber fortune sui*. Each is the builder of his own fortune.

An inordinate craving for immediate success is as great an evil in our profession as the all-absorbing desire for rapid acquisition of wealth so prevalent in our times.

Sudden success is like a "weed of hasty growth," and is rarely lasting.

Mushrooms spring up in a night, but good timber grows slowly.

Success which rests upon solid worth is alone enduring.

There is a leveling process ever at work, a silent, inexorable process of adjustment, which sooner or later sets aright apparent wrongs.

Untoward accidents, so-called, will sometimes happen; but after many years of thoughtful experience I can truly say that nearly all those who began life with me have succeeded or failed as they deserved.

Be not then too eager, but rather strive to acquire superior knowledge and skill than scheme for the rewards that justly belong only to those who have earned them.

Finally, in order to succeed, you must have confidence in yourselves and in your mission.

The Heaven-appointed man is also the man who is ready and willing to do the work, hopeful, trustful, and determined that by the grace of God he will carry it to a successful issue.

The proudest motto for the young!
Write it in lines of gold
Upon thy heart, and in thy mind
The stirring words enfold;
And in misfortune's dreary hour
Or fortune's prosperous gale
'T will have a holy, cheering power,
"There's no such word as 'fail!'"

EPILEPSY.*

BY J. A. LARRABEE, M. D.

Professor Diseases of Children in Hospital College of Medicine, Louisville.

Notwithstanding the fact that epilepsy as a disease has been described by the oldest medical writers, and that it is in all probability coeval with the oldest history of man, we are as unable to-day to demonstrate its pathology and indicate its cure as when, two thousand three hundred and eighty years ago, it was graphically described by the great "Father of Medicine." The most comprehensive answer to the question, what is epilepsy? is that it is an explosion of nerve (electrical) force, or, in a word, vaso-motor spasm.

With the exception of those instances where traumatism has established an irritating cause, the brain of the epileptic, dissected after death, shows no lesion which could be made to account for the seizures. While there is a marked leaning of medical authorities to heredity as a predisposing cause, there is very great reason to doubt, and statistics by no means confirm such a theory.

In regard to chronic alcoholism on the part of either parent statistics are more conclusive, and leave very little room to doubt that drunkenness stands in the relation of cause and effect in the production of epileptic children. Syphilis—that protean Hydra of the human race—has also made claims which are not proven. It can not be doubted that acquired syphilis is productive of serious organic lesions of the nervous system, but epilepsy is not one of these. That parents of highly nervous organization, hysterical mothers, and neurotics in general are likely to transmit to their offspring a diathesis favorable to the development of epilepsy is entirely agreeable to what we know of diabetes and other neuroses.

Statistics gathered from asylums and hospitals show that one third of all cases of epilepsy in children have begun before the tenth year of life, and three fourths of all before the twentieth year. It is because this disease falls distinctly within the domain of pediatrics that I have chosen to call your attention to it to-night, hoping that these hastily written sentences may provoke a discussion which shall prove both interesting and profitable.

Hippocrates, nearly three thousand years ago, wrote these words concerning epilepsy, "The cure may be attempted in young persons but

*Read at a meeting of the Louisville Medico-Chirurgical Society Feb. 2, 1894. For discussion see p. 221.

not in old." This paper is based upon the analysis of twenty cases of well-established epilepsy, covering a period of seventeen years, and ranging in age from five to twenty-five.

All have been cured, or, in other words, have been entirely free from *grand* or *petit mal* since treatment, but the recent cases cover now only two and one year observation. Of course these still remain doubtful. One case, a girl of ten years, who had as many as five or six *grand mal* seizures a month, had a severe spell last September after a whole year of perfect immunity. She is not included in the above number. It is interesting to note that this attack was undoubtedly brought about by a hearty meal of sausage and pork. The mother remembered, better than I, that I had said in my lectures that the child could be allowed to eat meat at the end of the year if she had no spells. On the very anniversary of that day she gave the above *menu* for supper. She has again been put on treatment, and has had no return up to now.

The first case, seventeen years ago, was an adult who was obliged to give up a lucrative position in the old "New York Store" by reason of the frequency of his attacks. He had been treated for years unsuccessfully by bromides, and presented the bromidean acne when he came to me. He remained two years under treatment, and is now in California, and at last accounts well. He was treated with sulphate of copper, and had the copper line well marked upon the gums.

Six other adults have been discharged and remain well. One treated by gold has had no spells for six months. The remainder were children at and below the age of puberty.

One patient, still under treatment with chloride of gold and sodium, although markedly benefited, has been obliged to suspend the treatment on account of bowel and stomach derangement. From my limited experience I have found the salts of zinc and gold to be more irritating than the ammoniacal sulphate of copper, which I prefer. I believe that nitrate of silver in small doses, continued long enough to produce argyria, will result in the cure of ninety per cent of epileptics. But the disfiguration is of such a character that it would be unwarrantable practice without a written contract, in which the patient agrees to look all through his life like a highly polished stove-pipe. Believing as I do, that the metals, tin, copper, zinc, and gold all act in the same manner, namely, storage in connection with the nerve cells in the discharging areas of the brain, I have used them with the above results.

Two of my epileptic patients, not included in the above list, have died in a fit—both could have been saved had any one been present. One, a most estimable lady, was found face down upon the bed; the other fell into a tanner's vat where he was employed.

No epileptic should be allowed to sleep upon a feather pillow. In speaking of my treatment of these cases I claim nothing new or original. The therapeutics of epilepsy has included at different periods in the history of medicine nearly every drug and chemical in the materia medica; nor is it strange that a disease whose pathology is shrouded in mystery should, in ancient times, have been the subject of all that is mythical, mysterious, and superstitious in medicine. Not only have the earth and sea been scoured for remedies, and vile and disgusting concoctions made from the animal and vegetable kingdoms, but the planetary system has been invoked and the subtle salts of the alchemist have had their day, and, what is stranger still, their cures—the charm and the amulet, the mistletoe gathered under the exacting rules of the Druids, have all cured under the dominant idea.

Bromides. The introduction of bromic acid united with various bases marks an important era in infantile therapeutics. This is the "sweet oblivious antidote," dreamed of by the immortal "Bard of Avon," with which we may "erase the writ tablets of the brain." While the bromides are inadequate to the cure of confirmed epilepsy, they are of all agents the best to obtund the brain to peripheral impressions. Their sphere of action is in the prevention rather than in the cure, and some one of the salts of bromine should be continued for two weeks after a fit of eclampsia in the infant or child. A longer continuation is apt to produce unpleasant symptoms of bromism. Ammonia is the best base for any of the acids, therefore preferable to potash. In adults these agents, carried to their toxical effect, secure often long immunities to a seizure, but only so long as a condition bordering upon imbecility lasts.

With a cessation of the drug and a return of the nerve centers to their pristine vigor the attacks return in full force. It is quite different with the child, and some permanent cures may be expected in the growing brain from the administration of bromides.

Nocturnal Epilepsy, Night Terrors or Nightmare. The fact that epilepsy may exist for a long time unobserved is important. When a strong, healthy man or woman is heard to utter a cry and seen to fall to the ground in a convulsion, attention is attracted to them. When a

child stops for a moment at its play and fixes its eyes upon some object, remaining immovable for a moment of time, and then without other manifestation resumes its play as though nothing had occurred, no attention is paid to it. Such attacks, however, constitute the "*petit mal*" of epilepsy. "Not unfrequently children awaken in the morning complaining of violent headache, and the soiled and disarranged bedding affords the only evidences of a struggle concerning which the child has no recollection." Such instances are by no means uncommon, and their true nature is only revealed by some fellow occupant who is put to watch them.

The relation of night terrors of children to epilepsy is also a matter of very great importance. This distressing condition, often "poohed" at and less frequently, but too often, made the subject of chastisement, has a marked effect upon the growing brain, and forms the background in the history of many an adult epileptic. Children who by inheritance are possessed of a neurotic diathesis are more prone to such attacks. When such authorities as Hennock, of Berlin, and Goodheart, of London, make the statement that they do not consider food to be a factor of any prominence in the etiology of night terrors, it may seem presumptuous for me to compare my limited experience and limited opportunities of experience with their extensive observation. Nevertheless an honest difference of opinion, however humble the source, is offered in the spirit of truthful investigation. From that experience I am forced to conclude that not only certain foods but also the time at which they are taken has largely to do with the production of night terrors, and consequently with the development of epilepsy in childhood. I have met with very few where the night terrors were not traceable to injestia in the intestinal tract, and with none in which a regulation of diet, especially the last meal, did not inaugurate an improvement and an amelioration of the night attacks. Nitrogen is an essential element in gunpowder and other explosives, with the destructive force of which we are only too familiar. It is scarcely less dangerous and destructive when circulating to an excess in the blood of animals whose nerve force it has the power of suddenly discharging. Epilepsy may be produced at will in the young of even carnivorous animals by feeding raw meat during the period (formative) of lactation. Kittens, so fed, will develop fits in a few days which prove fatal if continued, but which cease with the withdrawal of the meat. Horses overfed with stimulating, nitrogenous foods have epilepsy, and fall trembling in the harness. A piece

of rare beefsteak with tea or coffee at supper will be as equally certain to cause an uproar in the nursery during the night. It is a suggestive fact that the brightest minds that have adorned our nation and the greatest statesmen who have figured in history were put to bed as children upon bread and milk or oaten porridge. Whether or not the "Meat and Morals" of the great Russian reformer, "Tolstoi," shall receive scientific indorsement is yet to be seen, but quiet sleep and brain rest in children are both incompatible with meat and tea and coffee. Nine tenths of all the various convulsive manifestations in infancy and childhood have their origin in intestinal irritation or from a loaded bowel, packed cecum, or intestinal worms. I can remember when I used to prescribe bromide, chloral, sulphonal, etc., for the muscular, gastrocnemius cramps of elderly people with some temporary benefit. Latterly, however, I have found much in common between childhood and age. I find that an acid condition of the jejunum and ileum from faulty assimilation of faulty food is the cause of the acidity, and I have also found that a simple alkali, as soda bicarb., taken on retiring, secures exemption from the trouble.

The intellectual status of confirmed epileptics is often a matter of astonishment when we take into consideration the apparent gravity of the seizures. When an explosion occurs in one of the discharging areas of the brain the senses are under shock, and a condition like concussion occurs in the centers of conscious thought. Nearly always, before the suspension of consciousness, the victim ejaculates a word or sentence, which word or sentence remains peculiar to the individual, and then immediately the memory is obliterated. Often the aura is through one of the special senses, as vision, smell, or peripheral irritation. The same object is seen, the same odor is smelled, and the same peripheral zone is felt before each seizure. My experience among children leads me to indicate more frequently an ocular spectacle which is remembered as a ray of light approaching and blinding the victim. As regards the vigor of the intellect of epileptics, it must be admitted that in the growing age it is impaired by the attacks and often results in imbecility, while in age memory becomes almost entirely obliterated and the various manifestations of softening occur.

The fact that some of the world's greatest masters have been life-long epileptics must not be forgotten. The greatest epochs in history have been inaugurated by epileptics, while poets have sung and martyrs have suffered under its strange hallucinations. Upward of a hun-

dred millions of the world's population to-day bow the knee as devotees to the erratic religious devotions of an epileptic, whose prophetic visions and vagaries were but a part of his epilepsy. The old Roman wall of England, the broken arches upon the Rhine, the lofty peaks of Cis-Alpine Gaul bear silent witness to the indomitable will, fortitude, and genius of an epileptic who lived before the Christian era, while in the still remembered years of modern history we recall the burning of Moscow, the carnage of Austerlitz and Jena, and the culminating battle of Waterloo as the work of an epileptic whose gigantic intellect was extinguished amid the tempest of that awful night at St. Helena.

Persons who develop epilepsy after the age of puberty appear to retain their mental vigor in the interval of the attacks, and are often capable of attending to all the duties of life. They are moreover possessed of strong will power and determination. If a religious trend has been given to their character they become very devout, often fanatical, and make sacrifices which would be quite impossible for ordinary individuals. Confirmed epileptics often enjoy immunity from attacks by a pre-occupancy of the mind or by engagements in hazardous undertakings; for example, A famous church-spire painter who worked in Louisville was an epileptic, and could be seen any day suspended upon his airy platform, one hundred and fifty feet above the ground. He never had a spell while aloft pursuing his work, but once back upon *terra firma* he would be seized with a fit. So marked is this feature that treatment by a new physician, especially if he be a celebrity, often secures a long immunity from the seizures. The knowledge of this fact should caution us against attributing the relief to our therapeutic measures.

Epileptics seldom die in a paroxysm, but oftener live long and useful lives. A gentleman, well known in this city and throughout the State, whose Christian example and good works will be handed down to future generations, has been an epileptic from boyhood. He was refused life assurance over forty years ago, and has outlived every one of the agents and physicians of the company. He has been twice paralyzed, first right and then left hemiplegia, and is to-day a sound reasoner and thinker.

I desire to call especial attention to the importance of the treatment of infantile eclampsia. The commonly accepted fact that convulsions of epileptic form are of frequent occurrence in inverse proportion to age,

may possibly be the cause of carelessness in general practice; the consequences and the importance of a complete restoration of the nerve centers is forgotten. The foundation for future epilepsy is thus laid. This is about the way it runs: The family physician is called to a child in a fit; he arrives; is informed that it is all over; the child has had a spasm but is now sleeping quietly, if he wishes he can come in and see it. Now, instead of explaining to the friends the importance of after-treatment, care, diet, and possible medication, he is too apt to say, "Oh, never mind, I guess it will be all right; and if he has any more trouble let me know."

The increasing tendency to convulsions in infancy may be attributed to two principal causes, namely: first, the more perfect development of the animal brain—cerebellum; second, the immature development of the intellectual brain—cerebrum.

All the acts and functions of the new-born babe are reflex, rhythmical action, only becoming manifest with the deposit of gray matter; for example, Cheyne-Stokes' respiration denotes serious disease in a child and in an adult, but it is the normal respiration of an infant. The pulse has no regularity, and noise and slight concussion are responded to as in a frog poisoned by strychnine.

Gradually, however, the will power, "that column of true majesty in man," develops and asserts its power over the spinal system. Just in proportion to this development or non-development an infant remains liable to convulsions. Every practicing physician knows of families possessed of such a diathesis, and learns that a hasty summons on account of some trifling ailment means a spasm. A child who has had a convulsion from any of these causes is more liable to have another from a lesser cause, and so on until finally a "*status epileptica*" is established, after which the fits occur without any apparent cause. We know comparatively little of the process by which such photographic impressions are made upon the growing brain of the infant, but we do know that the stains are well-nigh indelible.

LOUISVILLE.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, January 19, 1894, Dr. T. L. McDermott, President, in the chair.

Dr. A. M. Vance (Microcephalus; Propriety of Operation): I asked this lady to bring her baby here this evening to show a typical case of arrest of development of the brain (microcephalic condition), and to bring up the question of an operation which I have performed once or twice in this city. This case seems to me to be a typical one of the class which have been operated upon formerly even more than at the present time. I have recently come to the conclusion, more particularly from reading, and also from my experience, that craniectomy for microcephalus is an unjustifiable operation, and I have so informed this mother. This child has practically no mind, and is also a paralytic. A French surgeon, who for years had charge of one of the largest foundling asylums in Paris, reports eighty-three cases correlated by him, and draws the conclusion that in no case did good result from the operation. In the case I reported some time ago there has certainly been no material improvement from the operation. I opened both sides of the head, allowing a period of several months to elapse between the operations; and, while the child had no trouble from the surgical procedure, there has been practically no improvement in the condition after almost a year. The Frenchman I have referred to states that it is entirely a mistake to suppose early ossification is the causative agent in lack of development of the mental faculties; that the brain ceases to grow, and early ossification takes place owing to the arrest of development of the brain substance.

DISCUSSION.

Dr. A. M. Cartledge: I do not think, from what I have read and what Dr. Vance says, who has had considerable experience with this branch of surgery, that the results justify an operation.

Dr. Vance: The mother dates the trouble back to an attack of pneumonia, lasting for three weeks, when the child was about a month old. There was some catarrhal trouble at that time which was attributed to the attack of pneumonia.

* Stenographically reported by C. C. Mapes.

Dr. Wm. Bailey: Cases like the one before us have generally been regarded as utterly hopeless. I was delighted at the prospect that was offered to the profession in the claims made by those who were operating according to the method Dr. Vance has spoken of that some good might possibly come to these hitherto hopeless cases. I do not think it has been determined what is the pathological condition here, whether the arrest of brain development is dependent upon consolidation of the cranium and want of development there. I think it is noticed that the cranium closes sooner in these cases, and more firmly; then, again, that there seems to be a failure of development of the brain; so it is a question in my mind whether the trouble is early ossification, or whether a failure of brain development precedes that condition dependent upon something else. I can readily see how by opening the skull, giving the brain additional room, that temporary improvement would come; and I believe this is the history of some of the cases, that the muscular spasms, that the irritation apparently is diminished for the time being, but I am sorry to learn that there is no better outlook for the operation.

Dr. W. L. Rodman: I, like the other gentlemen who have spoken, except Dr. Vance, have never done a linear craniotomy. I do not see that any thing is to be gained by an operation, and have never believed in it. I have seen it done several times, and have been so situated that I was able to follow the history of a number of cases that had been operated upon by Keen and others at Philadelphia. The result was such as not to encourage me to operate. Two years ago this month I visited Dr. Kerlin, who was then superintendent of the largest feeble-minded institute in the United States, at Elwyn, Pa. He told me that a number of children in the institution had been operated upon by Keen and others without improvement. Keen has done more work in this line than any other surgeon in this country or anywhere else, except Laniou, who first performed the operation. It is a dangerous procedure as we all recognize, a fair proportion of the patients dying on the table. It seems to me that it is not based upon good pathology, and I believe the operation has no place in the surgery of the future.

Dr. J. A. Larrabee: This is the fourth case of microcephalus I have seen recently, and I believe this child is in better condition than any of the others. The last one seen was in New Albany, Ind., a child probably two or three months older than the one before us: head measurement fifteen inches, while this one measures sixteen inches. While in the other cases the attention could not be drawn to any thing, this child

sees without doubt, and is attracted by distant objects. The palatine arch in this case is not nearly so high as in many other cases. The vaulted arch of the palate, which lessens the capacity of the cranium, is much better in this case than in the three others I have alluded to.

In regard to the matter of obtaining relief by craniotomy or by division, giving the brain more room, I believe that operation is adapted to some cases where we have a condition opposite to this, and that is of hypertrophy of the brain, by which I mean an increase of the white fibrous tissue crowding out the gray matter of the brain so that it can not be deposited. I believe in such a case as this benefit might be expected from an operation. But in a microcephalic skull like the case before us it has simply adapted itself to the brain, and I fail to see the necessity for an operation. In the other class of cases the child is forever trying to break its own skull. I have seen cases of this kind where they have endeavored to strike the head to obtain relief; it would seem, if we could take a mallet and break the skull as we would break a cocoanut, it would afford the proper relief. In hypertrophy of the brain, when the skull is divided in *post-mortem* examinations, the convolutions are found so flattened, the brain is so pressed that you can not introduce a small instrument between the folds. It seems to me that there is an indication for craniectomy in such a case, and we might hope for relief by it, but, as I have already intimated, I do not see what hope we have for relief by operation in the opposite condition, like the case before us. From my experience and observation with several of these cases I believe the best results are obtained by putting such children in an institution for the feeble minded, where they may be properly cared for. In such an institution some development takes place, and in the case before us I should have more hope by that method of treatment than any thing else.

Dr. E. R. Palmer: There is one question I should like to ask, and that is whether this mother ever had a miscarriage?

Dr. Vance: She has had one miscarriage at the fourth month, one preceding the birth of this child.

Dr. C. W. Kelly: I can only voice the opinion expressed by Dr. Bailey so far as closure of the skull upon the brain is concerned: First, that there is arrest of brain development, then closure of the sutures. It is evident that there is arrest of development of the brain, otherwise there would not be closure of the fontanelle and sutures. If that be true, an operation would necessarily not be warranted or justi-

fied; certainly I can see no future for operations upon cases of this character.

Dr. Palmer: There is a man in this city whom I knew as a boy, and I knew him to be in active syphilis when he married; if he has not a child which is an absolute mate to the one presented here to-night, I never saw two cases of disease that looked alike. The child is now about three years old, and is carried about by its grandfather; it has the same convulsive movements, the same strabismic condition, the same characteristic Hutchinson's teeth. The mother gives the history of a miscarriage at four months, just as in the case before us to-night. It is a very common thing for people who live a few miles in the country to come into town and in their "lark," as they call it, contract a case of syphilis, go back home and have some such result follow as we see in this case and also in the the case of the clerk I have mentioned. The father of the child presented to-night lived within a few miles of Asheville—of course there is nothing personal in these remarks. The child seems to be well nourished. It has not the characteristic fingers of hereditary syphilis, but it certainly has notched teeth, which, however, might occur from ordinary malnutrition; but it is strikingly like the child of the clerk I have spoken of, whom I knew to be in active syphilis with early secondary eruption out when he married; and his wife, so far as her general appearance goes, is absolutely devoid of any syphilitic manifestations. If an operation is advisable, it would be that the public might be relieved of the care of a child which is unquestionably an incurable idiot.

Dr. Vance: I do not think the history of this case points to syphilis as the cause; I have never heard it brought up before. The fact that this is a microcephalic child does not prove that there is a specific element in the family; on the other hand, there is absolutely no history of syphilis on either side.

I do not think I will ever do another operation for a condition of this kind, as I believe it is unjustifiable.

Dr. D. T. Smith: First, in regard to Dr. Palmer's position that this is syphilis: That the child may have syphilis of course I am not prepared to deny, but that syphilis can perpetuate or produce microcephalus, or that syphilis has any relation to microcephalus, I am not at all prepared to believe.

As to operation, I agree with Dr. Vance that we have reached the position where we all know that operation promises nothing, except

that it might to a certain extent eliminate from society this troublesome element.

In reference to the conclusions arrived at by the French surgeon, as quoted by Dr. Vance, who claims that there is an arrest of growth or development of the brain which causes an arrest of growth of the skull and consequent ossification, it seems to me that it would be very hard to prove that such a condition occurs. We know very well that through the entire course of animal evolution there is a correlation between the growth of all parts. Who ever heard of the bones outgrowing the muscles of the arms, for instance, or the arteries or the nerves being too short. The forces are so balanced that whatever causes arrest in development of one similarly affects the other; so, I take it, where there is arrest of the brain there must necessarily be an arrest of the skull from the same cause, and *vice versa*.

Dr. T. L. McDermott: I take it that this condition of affairs may be due to some faulty development of the ovum; for instance, in a family of eight children you will usually find seven robust, healthy children and one microcephalic child. You will find a history of a miscarriage connected with it in which there has been defective development of the ovum, and this may have some bearing upon the case.

Dr. Larrabee: I am as fond of attributing diseases to syphilis as anybody can be, and I think I have rivaled my friend, Prof. Palmer, in attributing many things to syphilis; in fact I am very willing to refer a great many of the ills of the human family to this disease, but I think in this we have a case where the doctor draws too broad conclusions from too narrow premises. There are several points in Dr. Palmer's relation of the cases that I want to call attention to. First, he emphasizes the fact that the mother of the clerk's child was entirely free and has been throughout from any syphilitic manifestations, yet she gave birth to a child giving every evidence of inherited syphilis. I would like to ask Dr. Palmer how this mother could give birth to a syphilitic child and be entirely free from the disease herself. Second, if this be true, then Dr. Palmer must grant that infection of the ovum took place through the male without contamination of the mother. Does he so grant?

Dr. Palmer: It is a settled matter that many people are practically immune from syphilis. In reply to the second question, authorities differ, but my own belief, which is the one most generally held by syphilographers, is that a syphilitic baby has a syphilitic mother. How-

ever, many syphilitics in early stages present few or no evidences of the disease, and that too where no treatment is instituted.*

Dr. Larrabee: Another point. Emphasis was placed upon the question of serrated teeth, which is a condition of absolutely no importance in deciduous teeth. Characteristic Hutchinson's teeth are furrowed, notched or grooved, and without enamel; but this condition must exist in the permanent teeth to be of value as a diagnostic point. This mother stated that the child was unable to nurse for three days; it is a well-known fact that a child suffering with acute pneumonia can not nurse, so that this fact has no practical bearing upon the question of syphilis. If the child had had obstructed nostrils at birth, and that condition had continued for six or eight weeks, that would be an unmistakable evidence of syphilis, but no such history can be elicited. We have not asked this mother what influences were brought to bear upon her individuality. It is a recorded fact that during and immediately after the siege of Paris microcephalic and idiotic children were born in such numbers that all the asylums were filled. An investigation proved this to be due to the maternal impressions received during the insurrection. This mother has not been interrogated as to what maternal impressions may have been received during the time she was carrying this child.

From our present knowledge of the disease, I think the effect of syphilis upon the brain is to increase the growth of the packing or white fibrous tissue, and we would be more liable as a result to have an opposite condition of the head from microcephalus; we would get hypertrophy. I believe this is the position taken by all authorities upon the question of syphilis, but I have never heard it intimated before that microcephalus might be the outcome of syphilis.

*HEREDITY OF SYPHILIS.—Bergh states that, while it is generally acknowledged that syphilis may be inherited as well from the father as from the mother, it has been doubted that the child may inherit syphilis from the father while the mother remains in perfect health without syphilitic taint. Bergh has observed a case which appears to prove the possibility of this condition: A young prostitute, who had never suffered from syphilis, was delivered of a female child, who, three weeks after birth, presented evident symptoms of hereditary syphilis (erythema syphil., ulcers in the anal region, coryza). The symptoms disappeared after treatment with calomel. More than six months after the birth of the child the mother came under treatment for recently acquired syphilis, with indurated chancre, enlargement of the inguinal glands, etc. The child had been reared under circumstances in which it was not likely to acquire the disease, the symptoms being those of inherited, not acquired, syphilis; and the fact that six months later the mother was taken ill with the primary symptoms seems to prove that she must have been healthy at the time of childbirth.—*Hospitalstidende*, 1893, p. 697; *Universal Medical Journal*.

Stated Meeting, February 2, 1894. Dr. T. S. Bullock, Vice-President, in the chair.

The essay was read by Dr. J. A. Larrabee; subject, Epilepsy. [See page 208.]

DISCUSSION.

Dr. J. B. Marvin: All of Dr. Larrabee's papers are interesting, and the one we have just listened to is no exception. There are one or two points that I would like to mention. He tells us of the number of cases he has had where cures have been effected; he does not tell us the number of cases treated during the same length of time which were not cured. The number that he has cured, if I understood him correctly, by methods not generally recognized as being most beneficial in therapeutics, struck me with some degree of force. The history of epilepsy is so well known, as he indicates, and the therapeutics so extensive, and the profession as a whole have had such bad results with these metal salts, that when the bromides were introduced the effects were so much better that the majority of the profession rather looked upon bromides as specifics. Reaction has come on, the pendulum is swinging the other way; we now know that the bromides are not specifics. Certainly the statement that ninety per cent of certain cases of epilepsy are amenable to large doses of silver salts, to the point of toxicity, long continued is startling. I think this statement will be borne out by statistics, if we can rely upon them, that a greater percentage of cases of epilepsy are benefited by the administration of bromides than any other single or combined remedy. Another thing, I think, in those cases where we do not get the marked acne from bromides, the treatment shows better results than the converse. I believe also that this statement will be borne out, that there is a way of giving the bromides without producing all of the ugly and detrimental effects as pictured by some authorities, so that it is perfectly possible to give the patient bromides to the point of tolerance without producing mental hebetude, cachexia, and gastric and cardiac depression. This subject, to my mind, has about resolved itself at present into two classes: One class who look upon epilepsy from a medical standpoint, who continue to drug it; that class can be sub-divided into the surgeons who operate for the traumatic cases. There is a tendency now in the other class to do away with medical treatment, bromides, and every other form of treatment, and claim that all of these so-called phenomena of epilepsy

are due to peripheral irritation, and a great many operations have been performed, especially about the eye, for correction of so-called muscular strain, and they claim to get better results than by any internal medication. Taking this view of the situation, if epilepsy is produced by long-continued peripheral irritation, is it not more rational to remove that peripheral irritation by some operative procedure rather than to give some internal medication to attack the cerebral centers, which is almost certain to keep up the peripheral irritation?

I have long since come to this conclusion, that if I had to choose between the bromides, or any other form of medication, and simple regulation of diet and the bowels, I would take the latter in preference to the former. There is certainly no question in my mind but many cases are dependent upon gastric indigestion, retained fecal matter, toxemia, or whatever you may choose to call it; and, by getting that part of the system in an aseptic and healthy condition, we can sometimes accomplish more good than by keeping the patient thoroughly under the influence of the bromides. There is another point just there that I can not settle, bearing on the latter subdivision that I mentioned, which is agitating the profession at the present time, namely, that of operations upon the eye and other organs whichever might be supposed to be the exciting reflex cause. It is a fact, as we all know, that the nervous system especially tends to perpetuate certain actions; a spasm occurs to-day, or maybe two; it comes on more easily to-morrow, the next day still easier, and so on. If you will take a frog, get him to remain quiet, and stroke his back gently, he will manifest signs of pleasure. You may excite his sexual desires, and he will exhibit all the manifestations of pleasurable sensation. If you will take that frog and remove his cerebrum, he will still live, and after he has recovered from the primary shock you can still, by the same stroking of the back, excite exactly the same motions. Now, that is the important point. If it is so, and it certainly is, there must be two factors in the production of epilepsy. Certainly after the first attack, whether from peripheral irritation of the eye, stomach, penis, or any other organ, there is that condition of the brain which renders the subject more susceptible to ordinary peripheral irritation. Now, the practical point is, if that is so, will we get good results in cases of long duration by simply correcting the peripheral irritation? Will the habit not already have been formed, and the tendency be to keep it up? It is questionable in my mind whether epilepsy is curable by tenotomies, prisms, etc., about the eye.

Bromides may be given for a long time without any bad effects, and I think the majority of authorities differ in regard to the best salt. The ammonium salt is perhaps a little more stimulating and rather less depressing, but I think the best results are obtained from the bromide of potash.

I have had some cases under observation for four years without any return of epilepsy; in other cases the attacks have returned after a few months.

Dr. D. T. Smith: My experience, which has not been so great as that of Dr. Larrabee, has been all under authority. I have never departed from the ordinary routine treatment, therefore can say very little except what has been gained from the experience of others. As Dr. Larrabee says, the disease has been present in the human family from time immemorial; it is recorded by the earliest writers, and for years it was regarded as being a production of devils. This was generally believed, and in order to treat it successfully it was necessary for the operator to be able to practice the extirpation of these devils. Josephus claimed, if you will remember, a man in his time who practiced this by drawing them through the nose of the patient; that this could be seen by the natural eye, and as evidence that this man could draw the devil through the nose of the patient the epilepsy was cured. Of course the result was entirely due to some mental effect produced upon the patient, and as he believed that the devil had actually been drawn through his nose—or the cause of his epilepsy, if you please—the result was that he was entirely relieved.

In regard to the pathological condition, the causation of epilepsy, many writers claim that it is a vaso-motor spasm. I think, if any thing has been disproved, it is the contention that epilepsy is due to vaso-motor spasm. I think it is settled with reasonable certainty that as far as we know, and we can go no further, that the cells have an accidental or premature discharge of force, and this is the active factor in the production of an epileptic attack.

In regard to peripheral influences, I took occasion in the last paper I read before this Society to deny, on the authority of Dr. Landon Carter Gray, any relation between the production of neuroses and the production of epilepsy. Gowers, as well as Gray, also states that the cases are exceedingly rare where peripheral influences have any thing to do with the causation of epilepsy; one case is reported where a scar on the finger was believed to be the cause of the epilepsy, and in which the

amputation of the finger cured the epilepsy. Other similar cases are reported, but the general opinion of neurologists is that a neurosis is present, and that growths, scars, or peripheral irritation act merely as the exciting agents. If it could be demonstrated that the exciting cause of a case of epilepsy was a spicula of bone, then it would seem reasonable that its removal might effect a cure; on the other hand some change might have been brought about in the neighboring nerve cells which would cause a continuance of the seizures, even after the offending substance had been removed.

Referring to Dr. Larrabee's statement as to the avoidance of meat in epileptics: That meat food acts a prevention of epileptic attacks has been demonstrated beyond peradventure in a certain proportion of cases; Gowers especially recommends that meat be given in such cases.

Dr. T. H. Stucky: I would like to ask Dr. Larrabee if he has ever used the bromide of gold and arsenic in the treatment of epilepsy. At the last meeting of the Mississippi Valley Medical Association I listened to a very interesting paper read by Dr. Wood, of Pittsburgh, Pa., who presented me with a two-ounce sample bottle of this preparation made by Hays after the formula of Dr. Barclay. At that time I happened to have a little girl under treatment for epilepsy, who was having from three to five attacks per month. I took her to the clinic that day, and she was placed upon five drops of the bromide of gold and arsenic, gradually increasing the dose until the effects of the arsenic began to show itself in puffiness of the eyelids, etc., then the quantity was again reduced to five drops. She has been kept upon this dose without any return of the epileptic attacks. Whether the result is due to the curative effects of the bromide of gold or the combination, I am not prepared to say. I am inclined to believe the latter.

I have had one case under observation since 1886, nearly eight years, under the constant use of bromide, not carrying it to bromism, but to the point of tolerance, for a period of nearly two years, and there has been no return of the epilepsy up to this time.

Dr. H. A. Cottell: Epilepsy is such a worn-out and threadbare subject that I doubt very much if there is any thing new to offer upon it. When I took charge of the Clinic at the University two years ago a great number of epileptics presented themselves, old and young, and almost every known remedy for this affection was tried there. About this time bromide of stramonium came into notice and was

attracting considerable attention, and I gave this remedy a thorough test at the clinic. The results were seemingly satisfactory. But this is the old bromide treatment over again. The only argument that can be made in favor of bromide of stramonium over the bromides of potassium and sodium is that the stramonium salt has a molecule which carries two atoms of bromine, while the others have a molecule which carries only one. Thus the potassium salt is KBr_2 , while the stramonium salt is SrBr_2 . A point in favor of bromide of stramonium is that we can get the patient a little more rapidly under the influence of bromine with it than with the other remedies. I do not believe that there is any remedy for epilepsy. Even nitrate of silver will not cure it, though I am quite sure its continued use will make the patient resemble the "polished stove-pipe" so pertinently described by the essayist.

I have never cured a case of epilepsy.

Dr. D. W. Yandell: Concerning the pathology of epilepsy, the essayist spoke of how little we know about it, which I readily admit to be the fact. In all my experience I have only made three *post-mortem* examinations for epilepsy. One was when I was connected with the medical staff of the City Hospital, a confirmed epileptic who had been made blue by nitrate of silver. It was before the days of bromides. Bromides did not come into use until Locock brought them prominently before the profession in 1862. In one case where I made a *post-mortem* the membranes of the brain were found to be studded with hydatid cysts; there could not have been less than fifty or sixty of them scattered throughout the brain, varying in size from a shot to a hazelnut.

Another case was one of traumatic epilepsy, where a man had been stabbed with a pocket-knife. There was a little scar when he came into the hospital just at the inner canthus of the eye. The knife-blade had been broken off smooth with the soft parts; it had supplicated and a scab had formed over the wound. Of course it had not wholly cicatrized, and there was still a small open wound covered by a scab. The man died in an epileptic convulsion, and, in taking off the calvarium, just inside and above the eye there was a considerable abscess filled with pus and containing the piece of knife-blade. The blade remained there in the man's head for over a month, causing repeated epileptic convulsions, and finally death. These are the only two contributions to the pathology of epilepsy I have to offer. The third *post-mortem* was in the person of a child, where nothing out of the usual order of things was found.

In reference to the treatment of epilepsy, I have had no experience with the use of the metals Dr. Larrabee has spoken of. There are two great factors in the therapeutic management of this affection; first, attention to the diet; next, the use of the bromides to the full point of tolerance. I think I can say with perfect truth that I have seen a great many cases of epilepsy both in children and in adults entirely cured. I think any one can fairly be called cured who goes without a seizure for a period of five years. I know a number of cases that have gone without any species of seizure whatever for five years, and several who have gone for ten, fifteen, or twenty years without any recurrence whatever of a seizure.

Dr. Wm. Bailey: I want to be recorded as believing, and my firm conviction is, that in the bromides we have more control over epilepsy than by all other means combined. I think these cases ought to be kept on bromides properly diluted. Twenty to thirty grains three times per day is usually sufficient to control convulsions, and this treatment should be kept up for at least two or three years. I have had such good results from the use of bromides in the treatment of epilepsy that I rarely give any thing else. I think, in favor of the fact that there is a vaso-motor spasm, there is one remedy which, administered just at the time of the aura, will sometimes arrest the paroxysm, and that is nitrite of amyl. I simply offer this as an argument in favor of vaso-motor spasm.

Dr. Wm. Cheatham: Referring especially to Dr. Marvin's remarks in regard to epilepsy dependent upon peripheral irritation, section of the eye muscles has not resulted in the benefit that was promised by the originator of the operation (Stevens). Several cases were submitted to him, I think, by the Ophthalmological Society of New York, and he was given three years in which to cure them by tenotomy, etc. It is useless to say that he failed in the majority of cases, so that tenotomy of the eye muscles has not resulted in the good promised.

Dr. Stone (visiting): I know of several children that have been entirely relieved from epilepsy, and there is no question but quite a number of cases occurring in children are *cured*. I also know of several men who have gone four years to my knowledge at the asylum without an attack, who were not only epileptic but maniacal; I also know of one such result occurring in a female adult outside of the asylum. This length of time seems to me sufficient to be called a cure.

The pathological evidences often show plainly that it is impossible for us to cure all cases of epilepsy, even though they are not traumatic. For instance, an autopsy made at the asylum showed a spicula of bone growing down into the brain, an exostosis about three quarters of an inch in length, from the inner surface of the cranium. In another autopsy at the asylum, ossification of one of the arteries centrally located was shown to be the cause of the epilepsy. In neither of these cases could the real cause have been ascertained during life, and we could not have expected to relieve the trouble by any manner of treatment or medication.

At the asylum we use the bromides exclusively, preferring them to any thing else; although I have used other remedies, it has been to a very limited extent. Our results in the management of most cases of epilepsy have been unsatisfactory, merely ameliorative.

Dr. P. F. Barbour (visiting): I am sorry to say that I have not had such favorable experience with the treatment of epilepsy as to warrant my hoping very much for it. My experience has been mostly in asylum life. Under the largest doses of bromide of potash we were unable to do any thing with them. It seems to me that the only cases for which there is any hope are such as are found to be dependent upon peripheral irritation. If we can remove the source of irritation, whatever it may be, we can look for some benefit.

I was struck with the remarks of Dr. Larrabee concerning the effect which a change of physicians was likely to produce in patients suffering from epilepsy. Really the only rational treatment we have for the epileptic is to do something that will divert his mind and thus inhibit the action of the reflexes. I think this is why benefit is derived when a new physician takes charge of the case, it is something new for the patient to think about; it is the impression made upon him by a new physician and a new form of treatment that produces the good results. It seems to me on chemical grounds that bromide of sodium is the bromide we should use. Sodium is one of the normal constituents of the body, and can be given for a long time without producing any of the disagreeable effects that sometimes follow the administration of bromide of potassium or ammonium.

Dr. J. A. Larrabee: Perhaps some explanation is necessary as to the number of cases that have fallen under my observation. I reported them as cures, some of them extending over a period of eighteen years. All the cases have been carefully followed, with the exception

of the one in California, and I heard from him only a year ago, bringing that down to within a year's time with no recurrence of the epileptic seizures. I am far from claiming a cure in one year or two years' time, but if a man or child has epilepsy, three, four, or five attacks in a month, and then after treatment goes five years without recurrence of the trouble, I think it is entitled to be regarded as a cure, whether the patient may again develop epilepsy or otherwise. Of course I recognize the truth of Hippocrates' statement, which has often been verified, that this disease is curable in the young but not in the old. Most of my cases have been in the young, which is a point I wish to emphasize.

Dr. Marvin has probably illustrated this subject better than any one else, and has touched upon a favorite idea of mine in speaking about the perpetuation of epilepsy by the impression made upon the nervous system, rather by the photographic process upon the brain, and I wish to thank him for the elucidation.

Several of the cases treated by me with the metal salts had been under treatment by the bromides and various other remedies without benefit. There is nothing particularly new in the treatment I have mentioned. As stated in my paper, I believe the good results from the metal treatment are derived from storage in connection with the nerve cells in the discharging areas of the brain.

H. A. COTTELL, M. D., *Secretary.*

PAIN without fever, says a prominent physician, may be very severe, and may cause much suffering, but in acute attacks it is not dangerous. "If you had this amount of pain that you complain of," he said to a patient who had hastily summoned him, "in any inflammatory disease, you would be in a raging fever; if you have no fever you need never worry." Most serious illnesses are preceded by a chill. This is a symptom which should never be disregarded, and it is always safest to put a child to bed and stop its food. Warmth and dieting will be found to be the best remedy for any ordinary indisposition, while for the beginning of any serious trouble it is often the only thing that can be done until the disease declares itself.—*Good Health.*

Reviews and Bibliography.

A Clinical Text-Book of Medical Diagnosis for Physicians and Students, Based on the Most Recent Methods of Examinations. By OSWALD VIERORDT, M. D., Professor of Medicine in the University of Heidelberg, etc. Authorized translation, with additions. By FRANCIS H. STUART, A. M., M. D., of New York. Third revised edition, with one hundred and seventy-eight illustrations. 700 pp. Philadelphia: W. B. Saunders. 1894.

Vierordt's Medical Diagnosis has been everywhere accepted as the foremost treatise on general medical diagnosis that has yet been produced. Nor will the different sections compare unfavorably with the best works on special diagnosis in so far as they cover similar ground. One does not feel, in reading this book, that he is merely to learn what the author has set forth, but throughout the reader feels that he is being taught to apply all his faculties to the subject in hand; he feels, he is made to feel and see and hear and think for himself, so vivid and graphic are the teachings of the able and learned author.

There are some helpful features found in the tabular or schematic arrangement of Da Costa and other treatises that are here wanting, but it would require a very large work to tabulate in parallel columns the points of differential diagnosis in the fullness here attained, and it is questionable whether its very bulkiness would not defeat the object. Of course all the finer methods of recent investigation receive ample attention. The work has already become a standard authority in at least five different languages, and has passed beyond the need of commendation. The translation is a happy one, and the press-work neat and attractive.

D. T. S.

A Hand-Book of Ophthalmic Science and Practice. By HENRY E. JULER, F. R. C. S., Ophthalmic Surgeon to St. Mary's Hospital, etc. Second edition. Philadelphia: Lea Brothers & Co. 1893.

A few years ago we reviewed this work in these columns, and found nothing but what could be commended. The present edition brings the volume up to modern teaching, and without in any way injuring its former good points. In looking for the additions we fail to see a description of the new model Javal ophthalmometer. This is the most decided addition to the armamentarium of the ophthalmologist made in recent years. Next to the ophthalmoscope it is the most valuable instrument at his command. The more the reviewer uses it the more he becomes convinced of its value. Not only is it a labor-saver, but by lessening the indications for a mydriatic it is a great boon to many astigmatic sufferers who are unable to devote their days or their weeks to the use of a reliable mydriatic.

J. M. R.

Diseases of the Chest.

Under the Charge of Ewing Marshall, M. D.

THE DISSEMINATION OF TUBERCULOUS DISEASE BY MEANS OF INFECTED DUST (London Lancet, February 24, 1894).—Under the above heading E. Clifford Beale deals in a very practical way with the supposed principal way of transmitting tuberculosis from one patient to another. He says the facts appear satisfactory from a purely experimental point of view, but that from a clinical standpoint they admit of considerable discussion. He makes this the test that in order to satisfy the clinical mind it is necessary that evidence should be forthcoming to prove that those who are especially liable to the inhalation of infected dust should also be more prone to tuberculous disease than others who have not been so exposed.

1. Hospitals where tuberculous patients are treated do not sustain the dust idea.

2. Drs. Heron and Chaplin injected dust taken from tuberculous wards into susceptible animals, and have shown that such dust possessed but little infective power.

3. Occupations that predispose to tuberculosis are those that cause the workmen to inhale irritating particles, but not likely infected dust.

4. Occupations where the dust is most likely to be infected are not classed among those predisposing to tuberculosis.

He winds up his article with the following summary:

"The evidence thus afforded is, of course, open to considerable criticism. It is not easy to prove the rags in question are infective, or that they contain any remnants of sputum, tuberculous or otherwise; but it is a somewhat striking fact that such prolonged exposure to inhalation of fine dust, whether tuberculized or not, should be so seldom associated with phthisis. The facts, however, go to support the view derived from the vital statistics of the consumption hospitals that presumably tuberculized dust is not a striking factor in the dissemination of tuberculous disease. That it is occasionally such a factor must be held as proven by the results of experimentation under Dr. Koch's own supervision. Hence, such negative evidence as I have brought forward must not be regarded as in any way suggesting that the strict rule of disinfection of tuberculous sputum may be relaxed," etc.

INFANTILE PNEUMONIAS (Dr. J. W. Kyger, in Kansas City Medical Index, January, 1894).—Treatment: (1) Move the bowels—emulsion, castor oil; (2) temperature of room 65° to 70° F.; (3) grease and turpentine to the chest; (4) relief of pain, chloral; (5) temperature of child controlled by frequent sponging; (6) frequently necessary to tide the patient over the crisis

in croupous pneumonia, as well as to sustain the strength and failing heart action in the slower termination by lysis; (7) observe careful dieting. Unlimited use of milk deserves condemnation. Small quantities mixed with water, rice-water, barley-water, or lime-water, to prevent curdling. Many cases I abandon milk, substituting rice- or barley-water, egg albumen in sweetened water, whey, wine whey, etc., and if necessary use brandy for a stimulant; (8) the stimulating expectorants and carbonate of ammonia I seldom prescribe, believing that in many cases they do more harm than any possible benefit derived from their use; (9) with much accumulation in the air-passages of phlegm, a soft feather in some mild astringent lotion, when introduced into the throat, will excite cough, and enable the child to throw off the accumulated mucus.

[Rarely is the pain so severe as to need a sedative, and then chloral has such slight if any sedative action that it would not meet the indication. If the indication is to meet loss of sleep and nervousness, the bromides are more desirable than chloral, for they lack the depressing effects. In croupous pneumonia the tendency to hyperinosis is so pronounced that the counteractive effect of carbonate of ammonia is desirable, while at the same time it is probably the best of all the circulatory and respiratory stimulants.—ED.]

CARDIAC FAILURE.—This has been so carelessly and recklessly used by the medical profession to cover up their ignorance as to the cause of death that it has very naturally brought such a diagnosis into disrepute, though it has its proper place, as the following definition from Dr. John Curnow (London Lancet, January 6, 1894), introducing an address on the subjects of Cardiac Failure and Dilatation of the Heart, goes to show:

“The term *cardiac failure* is in general use to indicate a familiar train of symptoms which show that the power of the heart muscle is insufficient to perform its great work of efficiently forcing the blood through the vascular system. Of course this failure takes place in the various forms of dying. Passing over such obvious instances as these the term is applied more generally to the explanation of those cases of disease in which the want of cardiac power is the most striking and the essential feature, and in which it is practically independent of other local impediment or disease.

TREATMENT OF PNEUMONIA.—Dr. Russel M. Cunningham (Virginia Medical Monthly) says that the main features of treatment are (a) to combat the shock of the germ invasion, best done by opium, stimulants, and, in my opinion, hypodermoclysis; (b) to stimulate freely, the best stimulant as a matter of routine being whisky and strychnine, supplemented in extreme cases by tincture of strophanthus; (c) to control temperature, the best method being the bath; (d) to prevent, if possible, heart clots, hypodermoclysis, in my opinion, being the most reliable; (e) to meet indications as they arise.

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D. W. YANDELL, M. D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

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UNIVERSITY OF LOUISVILLE.

The Commencement exercises of the Medical Department of the University of Louisville took place at Macauley's Theater on the 13th instant. The spacious hall was packed by friends of the students and school who saw the doctorate conferred by the Hon. James S. Pirtle, President of the Board of Trustees, upon the members of the largest class ever sent forth from the halls of this time-honored school.

The following is the list of graduates :

Autrey, A. L., Tex.	Banta, W. P., Ky.	Campbell, J. A., W. Va.
Arnett, B. T., Ky.	Bressler, A. H., Kas.	Cole, L. L., Va.
Anderson, H. L., Tex.	Bryant, P. E., Ky.	Carpenter, W. S., Iowa.
Anderson, C. M., Ky.	Baugh, H. L., Ky.	Clark, C. A., Mich.
Abbott, C. T., Australia.	Borgman, D. H. W., Ky.	Clark, J. R., Ky.
Alexander, W. E. Mo.	Baker, O. L., W. Va.	Congdon, C. E., Cal.
Alcorn, J. B., Ohio.	Brooksher, S. L., Ark.	David, E. L., Ky.
Ayer, A. F., Ky.	Bowman, F. A., Iowa.	Dalton, W. B., Ky.
Arthur, T. L., Tex.	Colley, A. T., Ala.	Dorsey, W. J., Ky.
Allen, C. S., N. J.	Cooper, J. B. R., Ky.	Dunn, M., Ky.
Adams, E. M., Tex.	Conner, W. E., Tex.	Dysart, J. C., Tex.
Arnett, E. D., Ky.	Chambers, W. F., Ky.	Dodge, J. G., Tex.
Branaman, E. L., Ky.	Cline, B. E., Tenn.	Dixon, E. M., Ohio.
Blackman, R. H., La.	Collins, J. S., Tex.	Dodge, W. A., Idaho.
Barnett, O., Ind.	Curtis, R. R., Tex.	Dixon, W. L., Ky.
Butler, W. H., Tex.	Cosby, F. G., Ky.	Donakey, A. J., Ky.
Brown, W. D., Ky.	Cooter, A. M., Kas.	Day, H. S., Tenn.
Berry, C. C., I. Ter.	Campbell, P. L., Tex.	Dunn, J. B., Tex.



Dr. J. A. OUCHTERLONY.

- Ewell, J. A., Ky.
 Evans, J. J., Kas.
 Easterday, J. S., Ill.
 Elles, E. R., W. Va.
 Ellsworth, E. E., Ohio.
 Fry, L. H., Iowa.
 Freeman, J. K., Ky.
 Funk, P. C., Tex.
 Frazier, B. C., Ky.
 Ford, W. P., Ky.
 Fuller, L. E., Va.
 Flexner, J. A., Ky.
 Foster, E. C., Tex.
 Fulton, G. C., Ky.
 Gillespie, B. C., Ky.
 Ganz, P. S., Ky.
 Gordon, W. L., Ky.
 Gooch, G. J., Ky.
 Gibbs, L. P., Tex.
 Gaines, C. E., Ohio.
 Graul, J. D., Tex.
 Goldstein, R., Ky.
 Gose, J. C., Ky.
 Galvin, J. W., *M. D.*, Ky.
 Good, J. W., W. Va.
 Gosney, A. E., Ky.
 Grider, J. A., Ky.
 Gordon, J. F., Ohio.
 Gilbert, J. R., Tex.
 Gholson, W. E., Ky.
 Hendrick, F. G., Ala.
 Harwood, C. P., Ky.
 Harrell, J. E., Tex.
 Hinkle, F. I., Ind.
 Harris, C. K., Ky.
 Hurst, A. L., Ky.
 Hays, B. W., Mo.
 Hughes, E. C., Canada.
 Horn, L. A., Pa.
 Hogue, W. H., Ohio.
 Hargrave, J. W., Tex.
 Horner, P. P., Pa.
 Harrell, T. M., Tex.
 Haynes, F. E., Tex.
 Hargis, W. T., Ind.
 Iden, J. F., Ohio.
 Isenberg, N. H., Ky.
 Jarvis, A. S., Tex.
 Jordan, J. D., Ky.
 Jones, S. L., Tenn.
 Kennemur, W. E., Tex.
 Keesor, O. M., Ohio.
 Kidd, G. B., W. Va.
 Lowry, J. H., Ky.
 Luckett, E. R., Ind.
 Leavell, H. N., Va.
 Lidikay, C. J., Kas.
 Lindley, R. D., Tex.
 LaRue, F. G., Ky.
 Lawrence, J. H., Ky.
 Lawrence, J. W., Ky.
 Lake, O. A., Ohio.
 Marquart, P. C., Kas.
 Martt, S. G., Ohio.
 Mitchell, J. H., Tex.
 May, Vance, Ind.
 Middleton, G. W., Utah.
 Magraw, N. C., Ky.
 Morrow, J. W., Ky.
 Malone, G. W., Ga.
 Mason, J. B., Ky.
 Miller, J. L., W. Va.
 Moore, W. B., Ky.
 Muir, G. E., Ky.
 Milner, W. L., Ky.
 Mace, S., S. C.
 Moreland, C. G., Ky.
 Mackenzie, D., Ind.
 Morrison, R. E., N. Y.
 Martin, W. E., S. C.
 McClung, L. H., W. Va.
 McLean, H. L., S. D.
 McFarlin, J. T., Ind.
 McClung, C., W. Va.
 McCollum, I. N., Ark.
 McBee, B. W., W. Va.
 McGinnis, W. T., Ky.
 Newcome, E. E., Ky.
 Noyes, J. F., Utah.
 North, J. L., Fla.
 Nowlan, W. C., W. Va.
 Naultens, F., Neb.
 Norment, H. T., Ky.
 Oppenheimer, S., Mass.
 Ould, W. L., Va.
 Osborne, F. L., N. C.
 Oates, G., N. C.
 Orr, W. H., Ind.
 Peirce, G. L., Pa.
 Poindexter, R. H., Tenn.
 Pannenburg, J. C., Ill.
 Pearce, E. H., Fla.
 Plumlee, R. S., Ky.
 Pollard, J. A., Va.
 Pryse, T. S., Ky.
 Parker, J. W., Ky.
 Posman, A., N. Y.
 Pottinger, S. L., Ky.
 Powell, H. B., Ky.
 Pay, W. C., Ohio.
 Platt, W. E., Ariz.
 Robins, V., Ky.
 Ramsel, P. A., Tex.
 Robinson, J. H., W. Va.
 Rudolph, J. B., Ga.
 Rice, J. M., Ohio.
 Records, J. N., Ind.
 Reid, S. L., Ky.
 Richardson, F. J., Tex.
 Stodghill, J. D., Ky.
 Solomon, L. L., Ky.
 Sights, H. P., Ky.
 Smithson, G. B., Fla.
 Shrum, M., Ky.
 Sponseller, G. J. E., Md.
 Scott, D. V., Ind.
 Selfridge, W. T., Ind.
 Sutherland, W. S., Ky.
 Stevens, J. F., Kas.
 Stump, I. C., W. Va.
 Shawver, L. V., W. Va.
 Sullivan, J. C., Ariz.
 Smith, S. N., Tenn.
 Summers, W. F., Ind.
 Troutman, C. L., Ky.
 Turman, I. L., Ind.
 Thompson, J. A., Tex.
 Trippeer, B., Mo.
 Townsend, C. R., Mo.
 Turner, C. A., Mo.
 Truesdell, W. E., Ky.
 Vaughan, B. E., Ky.
 Van Gundy, E. C., Ohio.
 Van Buskirk, A. W., W. Va.
 Wash, G. A., Ky.
 Wylie, B. M., Ind.
 Wallion, C., Ky.
 Webb, A. A., La.
 Watson, W. H., Tenn.
 Wood, G. W., Mo.
 Wells, J. W., Ky.
 Wilder, J. F., Ky.
 Walker, F., Ky.
 Wilbanks, H. T., Tex.
 West, W. J., Ark.
 Zachery, L. F., Tenn.

In conferring the degree Judge Pirtle said :

GENTLEMEN : The degree which you have just received entitles you to the full rank of Doctor of Medicine, and while it gives you all the distinction it imposes upon you the serious responsibilities of the profession of medicine. The State watches with exceeding care who shall be admitted to practice medicine. The portals are closely guarded to see that none but those who are deserving and well qualified enter the profession devoted to the healing art. A man may choose almost any other lawful calling without interference by the State. He may be a merchant, a farmer, a mechanic, a manufacturer, a banker, a railroad magnate, even a preacher of the Gospel, as he wills, without the State asking what are his qualifications. Some care is observed in admitting candidates to the learned profession of the law, but so little that it seems that only the nobility of that profession and the character of its eminent men preserves it from degradation. But when a man presents himself to undertake the care of the lives and health of his fellow-men, the State stops him and demands of him his credentials, and sees that only those of a reputable college are approved. This safeguard is provided to protect the people from the dangers of empiricism and charlatanry, and to accredit every practitioner in such a way that those who are sick and suffering may confidently place themselves under his care. It may be that in the first hour of the active professional life of each of you, gentlemen, there will be placed in your keeping the life of a fellow being, and with it the happiness of those who love him. For this high office, for these grave cares and weighty duties you have been prepared by your years of study in the Medical Department of our University. The learned faculty have under their hands certified that you are now ready to undertake the practice of medicine with all its incidents. The signatures of its chief officers and its seal give the sanction of the University to your entry upon that practice. We do not certify that you are great and accomplished physicians, but we do say that you are fitted to begin the work, and that by studious devotion, constant application, intelligent observation and experience you will become great physicians. I look into the faces of men who by such means may become as famous in the world of medicine as Gross, who may acquire as great reputation and do as great deeds as McDowell or Brashear. All the great doctors, dead and living, once stood, as you now do, on the threshold, and their advance and success and fame and fortune were achieved just as yours must be—there is no other way. This thought must be your encouragement to keep up without cessation the good work, to run the course.

The position of the doctor in the community is not only a peculiar one, but, when he is all that he should be, a most enviable one. The respect and love which he may draw to himself are without measure. The good which he may do can not be estimated. He is the strong one to whom the suffering and weak turn for strength. He is the giver of hope in trial, the

kind and good friend in almost despair. No man has greater inducements to live up to the demands of the profession, for what greater rewards could be asked than he receives—more than riches are the gratitude, the affection, the confidence and admiration of his patients. He is the repository of their confidences more than all others, and, to the honor of the high-minded men who compose the profession, that confidence is seldom betrayed. I remember the offices of the teacher, the minister, the judge; I am not unmindful of what rests upon those professions, and of what the people owe to them, and what services they render the State, when I declare that the profession of medicine in its dignity and opportunity for philanthropy is second to no other calling.

Gentlemen, the University greets you as members of the profession of medicine, it greets you as its sons, and sends you forth to win for yourselves fortune and honor, and to reflect upon it some of your fame and success.

The class valedictory was delivered by Dr. J. C. Dysart, Texas. The subject, "Medicine of the Future," was handled in most happy style, and made a profound impression not only upon the young speaker's fellow graduates, but upon visitors and faculty as well.

The faculty valedictory was delivered by Prof. John A. Ouchterlony. This finished piece of literary work may be found in full text elsewhere in this issue.

The happy subjects of the new birth depart with the full benediction of their ALMA MATER.

A THERAPEUTIC RETROVERSION.

In the good old days of Edward the Second or Third, John of Gaddesden was court physician. He was the first doctor in England to win this high distinction. The honor was probably not unworthily bestowed, for he was an Oxford man, and doubtless knew what little was known of medicine in his time.

He lived at a time when medicine was a curious mixture of fact, fad, fiction, and folly, when the demon theory of disease was accepted for truth, when the hearts of nightingales were prescribed for loss of memory, when lunatics and epileptics were treated by causing the patients to fast, hear masses, and to wear about their necks appropriate texts of Scripture on certain holy days, and when the therapeutic efficacy of amulets, charms, and prayers was never doubted by the best physician.

This John of Gaddesden wrote a quaint old book, the *Rosa Anglica seu Practica Medicinæ*, wherein the following measure is recommended in the treatment of smallpox: So soon as the eruption has appeared, "Cause the whole body of your patient to be wrapped in scarlet cloth, or in any other red cloth, and command every thing about the bed to be made red. This is an excellent cure." Sir Thomas Watson, commenting upon "the erroneous principle," with results "eminently disastrous," upon which in the olden time the treatment of smallpox was conducted, says:

The eruption they considered to be the natural and only cure; and adopting the vulgar maxim, that "it was better out than in," they did all they could to promote a copious eruption by a hot regimen, by covering the patient with bed-clothes, by keeping the doors and windows jealously closed, and excluding every breath of fresh air, and sometimes by administering wine and cordials. The celebrated John of Gaddesden . . . improved even upon this. He surrounded the half-suffocated patient with red curtains, red walls, red furniture of all kinds; every thing he saw was to be red; for in that color there was, he pretended, a peculiar virtue. This John of Gaddesden, by the way, was a very sad knave. . . . He had one medicine so good as to be fit for the rich only; and he recommended a double dose for the wealthy: "*Duplum sit, si pro divite.*"

Sydenham was the first, in this country, to employ the opposite or cool regimen in smallpox; and although his prejudiced contemporaries refused to follow his example and adopt his practice, he confidently predicted its final triumph, "*Obtinebit demum me vitâ functo.*"

In the light of these historical reminiscences the following, which we clip from the New York Medical Record (17th inst.), is most interesting:

RED LIGHT FOR SMALLPOX.—Finsen (Hosp. Tid., No. 27, 1893,) has made some observations on the effects of light on the skin. He referred to the good results obtained by Black and others by the exclusion of daylight in the treatment of smallpox, but argued that, as Widmark has shown that it is the ultra-violet rays which have the strong chemical action, it is not necessary to exclude the daylight, but by using red curtains tightly drawn, or red window panes, the injurious effects of the light can be prevented. The correctness of this hypothesis was proven by Svendsen, of Bergen, who last summer treated four cases of smallpox in unvaccinated patients by covering the windows with thick red woolen curtains. The patients escaped the suppurative stage; there was no rise of temperature, no edema. The patients passed from the vesicular stage, which was slightly prolonged, into convalescence, and escaped scarring.

In this connection the verse of old John of Gaddesden's contemporary, Chaucer, is apt indeed :

" For out of the old fieldes, as men saithe,
Cometh all this new corn fro yere to yere ;
And out of old bookes, in good faithe,
Cometh all this new science that men lere."

The moral of this is, that inasmuch as things are found to be so by experience long before science comes and tells us why they are so, much that seems silly in the practice of olden times may be found by science to have good foundation in fact.

The old masters in music made all their wonderful blendings of melody, harmony, and orchestration long before the physicists knew why they wrote as they did, and, while the analogy is incomplete, we may expect medical science to justify much of the practice of the fathers in medicine.

The solar spectrum tells us why John of Gaddesden made things red around the smallpox patient; bacteriology (asepsis) tells why the traditional midwife burns the hole in the compress that goes over the cord of the new-born infant; the marvelous effects of thyroid gland injected or ingested in myxedema tell us how results may have been obtained through the administration of the viscera or glands of various animals in some affections; while hypnotism, to say nothing of other phases of psychic science, may yet redeem from scorn the superstitious belief of the ancients in stella strokes, demoniacal possession, doubles, ghosts, and witchcraft, and their faith in the therapeutic efficacy of charms, characts, amulets, fasts, sacred verses, and prayers.

Notes and Queries.

TREATMENT OF PUERPERAL CONVULSIONS BY HYPODERMIC INJECTIONS OF SALT SOLUTION.—The above mode of treatment of puerperal eclampsia is the one now adopted in the lying-in wards of the Lariboisière Hospital by Dr. Porak, physician-accoucheur of that institution. The salt injections are said to act beneficially by mechanically diluting the toxins in the blood and by favoring their elimination through the kidneys, the secretion of which the injections re-establish or increase. The quantity and quality of urine passed in these cases is, in fact, of great prognostic importance. When the urine is abundant and limpid the toxemia is mild, and the physician may trust to symptomatic treatment by means of chloroform and chloral administered simultaneously. (Six successful cases of this kind are cited in the recent thesis by Dr. Bernheim, one of Dr. Porak's pupils.) In every case, however, where the urine is either completely suppressed or is scanty and dark colored, recourse must be had to salt water hypodermics, either singly or associated with venesection. In Dr. Porak's wards the *modus operandi* is as follows: The solution employed for each injection is one liter of sterilized water, to which have been added from seven to seven and a half grams of chloride of sodium. This is poured into a hand-spray apparatus of which the longer tube ends in a hollow needle; or a syphon apparatus may be employed. The solution must be maintained at a temperature of from 37.5° to 38° C. The skin of one of the buttocks having been carefully disinfected, the needle is plunged into the areolar tissue and the salt solution is introduced. The parts near the needle quickly become indurated and the skin becomes pale. Gentle massage is practiced to favor absorption. In this way one liter is injected, the operation occupying twenty minutes. Should distension become exaggerated before the injection is completed, the residue of the liquid is introduced into the other buttock. This novel treatment has been tried on eight patients, in all of whom the urine was scanty. Seven were eclamptic and the eighth suffered from dyspneic form of uremia. In each instance one or two salt injections were the means of re-establishing the urinary flow and of suppressing more or less promptly the convulsions and the dyspnea in the uremic woman. Six patients recovered. Of the two women who died, one was admitted in a moribund state, and the other, in whom the attacks had ceased and consciousness had returned, died at home, where her husband had obstinately insisted on removing her.—*The Lancet*.

DEATH IN THE TOOTH-BRUSH.—*Il faut souffrir pour être belle*, say the French, and such as have any teeth of their own left must not spare the

tooth-brush, though it excoriate the gums and leave its bristles sticking in unsuspected corners of the mouth "like quills upon a fretful porcupine." Most of us are content to grin and bear these minor miseries of the toilet with such grace as we may, while seeking perseveringly for the ideal tooth-brush, which is as elusive as the philosopher's stone. A serious view of the matter, however, is suggested by a case recently reported in an American journal, in which an operation for appendicitis is said to have revealed the fact that the disease was due to the presence of tooth-brush bristles in the vermiform appendix. The operator, who practices in Albany, expressed the opinion that these "unconsidered trifles" are responsible for many obscure throat, stomach, and intestinal ailments. The moral appears to be that it is an ill-judged economy to use cheap tooth-brushes in which the bristles are simply glued on, and that, after the ordinary ceremony of tooth cleaning has been gone through, a subsequent "lustration" of the mouth is advisable for the removal of migratory bristles.—*British Medical Journal*.

GUAIACOL AS AN ANTIPYRETIC.—A new use for an old drug is always better than the introduction of a new therapeutical agent. Guaiacol is an old remedy which is now being employed externally as an antipyretic. It has been used in typhoid fever, and the recorded results are very rosy. In a case of typhoid fever, twenty to thirty drops are painted over the abdomen and gently rubbed in with the hand for five minutes, when the temperature will drop from four to eight degrees. While the fall is not as sudden as after a cold bath, it is more permanent and the rise is much slower. The strong odor of the drug is a great objection, but it may be disguised by other less ill-smelling substances. It is supposed to act through the skin on the heat centers as an antithermic, and it is not as depressing as antipyrin or phenacetin. Guaiacol used in this way is a simple remedy, and its manner of application is so easy that its use should be advocated in suitable cases.—*Maryland Medical Journal*.

LUPUS.—Harrison counsels the following procedure: On retiring at night the patient covers the diseased part with a compress dipped in an eight-per-cent aqueous solution of sodium hyposulphite. On waking, the compress is removed, and topical treatment made to the lupus nodules of hydrochloric acid, five drops in thirty grams of distilled water. This is continued over eight days. The crusts fall off, leaving ulcerated surfaces which cicatrize rapidly under the use of zinc oxide or boric acid.—*Medical Record*.

Special Notices.

SULFONAL IN THE TREATMENT OF THE INSANE.—Dr. John H. Scally (Maryland Hospital for the Insane) reports as follows concerning the action of sulfonal: "In treatment at this hospital, sulfonal has been used for its hypnotic effect in the stages of excitement during attacks of acute mania, mania following epilepsy, recurrent mania, chronic mania, and also in melancholia. It has not been our custom to give it regularly each day, but only at those times when, owing to the extreme restlessness and motor excitability of patients, sleep is denied them. In the management of acutely maniacal patients just admitted, when it is necessary to secure immediate rest, and, as is often the case, when the patients' very lives demand it, sulfonal has not failed in any case in which it has been used. Given in dram doses, preferably in whisky, not only has it secured from six to eight hours of sound sleep, but it has produced quite a decided amount of motor sedation, lasting from eight to twelve hours after waking. In each case sleep was obtained within one hour after administration, and in none was any bad after-effect noticed. Three of our cases, two being acute mania, and one epileptic mania, furnish evidence of the value of sulfonal as a prompt and reliable hypnotic when given in sufficiently large doses. In the first two cases both patients had been given morphia injections and other hypnotics by their family physicians with no appreciable effect. In both cases sulfonal acted promptly. In the third case sulfonal was found to act much more promptly than bromidia, paraldehyde, or morphia, all of which had been previously given."

REMITTENT FEVER.—Dr. Arthur C. Blain (New Orleans Medical and Surgical Journal, October,) defined remittent fever as being "a miasmatic, paroxysmal fever, characterized by exacerbations and remissions. He presents a series of cases in which excellent results were obtained from the judicious use of calomel, Warburg's tincture, and phenacetine. Dr. Blain thinks that Warburg should be administered on an empty stomach, and that food should not be given for three hours afterward. Calomel should be employed in the beginning as a purge. If sustaining treatment is required, arsenic (Fowler's solution) may be exhibited. In Dr. Blain's fourth case the evening temperature stood at 105°, and no effect was had from aconite and niter. On one occasion the temperature rose to 108°. Dr. Blain says, "In this case whenever the temperature rose I gave a six-grain capsule of phenacetine, and soon brought the temperature down to normal. Warburg's tincture had no effect, but sponge baths and phenacetine kept the patient at a comfortable temperature." In a case in which the fever ran for twenty-seven days Dr. Blain finally ordered eight-grain doses of phenacetine, repeated every second hour. After the third dose the fever left for the first time, and the temperature fell a little below normal. Whisky, quinine, and digitalis soon controlled the condition. In convalescence the patient was troubled with pains in the limbs, which were relieved by phenacetine and salol.

AFTER an attack of the grip the patient finds himself in a state of extreme weakness and prostration, from which condition he is tediously brought to his former good health. Remedies which stimulate his exhausted nerves too vigorously do so at the expense of his general condition. Then comes the relapse. *Syr. Hypophos. Comp.* (McArthur) conveys to the tissues the revivifying and vitalizing agent phosphorus in its most oxidizable and assimilable form. Thus the true vitality of the nerve structure is restored by renewing the nutrition of the tissues themselves.

DR. ALBERT RITTER VON CHRZASCZEWSKI, of Sambos, Galicia, Austria, on November 28, 1892, writes: Bromidia is superior to all other hypnotics, and is free from all unpleasant effects.



DR. STEELE BAILEY,

PERMANENT SECRETARY OF THE KENTUCKY STATE MEDICAL SOCIETY.

THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNĀ.*"

VOL. XVII.

LOUISVILLE, KY., APRIL 7, 1894.

No. 7.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

PNEUMONIA.*

BY STEELE BAILEY, M. D.

In the imperfect and brief preachment which I shall present you to-day my text will be pneumonia. The committee in selecting the subject may have had a vague idea that something new or startling could be said by me relative to the etiology and treatment of this too common affection; if so, another and more worthy appointee should have been chosen. I have no tangible assets in this line, and shall be able, for the want of an "original" harvest, only to thresh over last year's straw.

Abundant new knowledge, it is true, the last decade has yielded concerning the etiology and pathology of pneumonitis, the acceptance of which by the profession is, I believe, almost universal; but it is impossible, with the limits imposed on this paper, to bring more than a few of these facts before you, and in so doing I trust no injustice will be found done to any authority I may quote. Many and varied sources have been drawn upon. It is here a little and there a little; the text presenting the anomaly of having but few references, deeming it unnecessary to report them all formally. However, if I do no harm other than to furnish ammunition for a lively skirmish I shall be gratified. Thanking "the thinkers," then, for the basis and superstructure of this article, with your sympathy, I will attempt in a chatty way to co-ordi-

*Read before the Central Kentucky Medical Association at Danville, January 18, 1894.

nate and explain what we think we know about inflammation of the lungs.

The subject is one of great interest, and one on which there has been a diversity of opinion for a long time. To enter into an extended research or exhaustive analysis relative to the pathology or results of pneumonia, or to discuss its various forms and phases, would be pleasant, but we have n't the time; nor shall I furnish you statistics, because of their unworthiness. These at best are but an imperfect basis on which to found impressions and guides. But I believe therapeutics should hold a prominent part, for to-day, after all the advancement made in the science of medicine, pneumonia, though a curable disease, stands second only on the roll-call of Death.

Acute lobar pneumonia has a definite history and a constant pathological lesion, but a question recently has arisen in regard to its exact status in nosology. As characteristic as is the malady, and as uniform as it is in its behavior, we still hesitate at the very threshold of our opinion whether it is a constitutional disease with a local lesion or a primary local disease affecting the system secondarily. Disputants on both sides are equally dogmatic and equally positive. Nine out of ten here present to-day I expect would pronounce it a local lesion, and yet when challenged for the reason of your faith would be only too willing to make qualifications. A few, the minority throughout the land, are convinced that the malady in question is an essential fever with a local lesion.

It matters not, affections of the lung substance, whether in the acute or chronic form, furnish perhaps the most complete debatable grounds of medicine. But I must say that acute pneumonia is regarded by the leading pathologists in Europe and in this country as a specific infectious disease. Green, in his article on "Inflammation of the Lungs," in Quain's Dictionary of Medicine, says: It is maintained by some observers that, like the specific fevers, it is due to a specific cause. Pneumonia, while differing from these fevers in not being contagious, resembles them in the typical character of its clinical phenomena and to a less extent of its local lesion. The changes in the lung occurring in pneumonia *can not* be induced by artificial injury of the organ, and it must therefore be admitted that there is something special in the inflammatory process. This "something special" has been demonstrated by recent researches, and it will be my object later on to tell you about it.

I have been very much pleased with what a recent prominent authority says. He uses Fagge's definition to describe pneumonia: Idiopathic in its origin, acute in its course, lobar in its extent, basal in its usual distribution, and fibrinous in the character of its exudation. We have here excluded (1) broncho-pneumonia, (2) suppurative or infectious pneumonia, and (3) traumatic pneumonia. In considering the view usually accepted, that acute pneumonia is an inflammation of the lungs, and that the high temperature, altered pulse, respiration ratio, and other symptoms are induced by the local lesion, we first must consider what that local lesion is.

"We have in this disease an engorgement of the blood capillaries in the lungs followed by an exudation from the blood rich in fibrin-forming elements. This produces a condition in the lungs known as hepatization, and the exudation coming directly from the blood is removed from the organ that receives it, but without any injury to that organ. With this consolidation of the lungs we have a high temperature, higher than is found in any other inflammation, or in any other disease, except the specific fevers, tuberculosis, or pyemia." (Heneage Gibbs.)

Pneumonia is a typical disease, taking all cases into consideration. The subjective and objective symptoms due to the local affection of the lung usually take chief place among the clinical appearances. Like the other infectious diseases it runs a certain course, extending over a certain time, and usually ending by crisis. It sets in suddenly, the chill is sharp, makes a marked impression on the patient, and the pyrexia develops rapidly. In the influenzal pneumonia the chill is often lacking, a slight rigor taking its place. The respiration in acute pneumonia is increased, sometimes it equals or even exceeds the heart beats. The pyrexia, the pain in the side, the sputa, which may be simply mucous and catarrhal, may precede by several days the onset of a frank pneumonia. But it is hardly worth while to further talk with you about the temperature, nervous and cerebral symptoms of a disease with which you are all so familiar. The cause of pneumonia in all its varying forms—the sthenic, asthenic, the bilious, the typhoid, the alcoholic, the epidemic—is now believed to be a bacterium, the *diplococcus pneumoniae*.

This organism is present regularly in large numbers in the pulmonary exudate of this disease, and in most of the complicating inflammations, such as pleurisy, pericarditis, and meningitis. In the majority of

cases it is the only bacterial species present; but the question naturally arises here, is the organism really the specific cause of all cases of genuine lobar pneumonia? Klebs was the first to describe what he believed to be the specific agent in pneumonia. The lesions produced by Klebs' monads, however, were those of experimental septicemia in general and not a true pneumonia. Eberth, in 1881, described certain micrococci isolated or in colonies. Koch, in 1881, was the first to indicate the oval forms of micrococci, which he found in the capillaries of the lungs and kidneys in a case of pneumonia. In 1882, Friedlander published his account of the micro-organisms in eight cases of frank pneumonia. This diplococcus described, cultivated and injected, producing a frank pneumonia, is now usually admitted to be the specific cause of croupous pneumonia. (Turnbull.)

Fraenkel is of this opinion as to the cause of lobar pneumonia, and Weichselbaum that it is the most common and important cause, but that in some cases other organisms play the causal rôle. The diplococcus is present regularly in the expectoration of acute lobar pneumonia or any other variety of pneumonia, but its presence is deprived of diagnostic value because the pneumococcus, or some of its varieties, with or without virulence, is a regular inhabitant of the mouth in health; because it is thus so present is not, however, an argument against the pathogenic powers of this organism in man. Prof. Welch, of Johns Hopkins, from whom these ideas are gotten, says the existence of pneumococcus in healthy persons is a help rather than a hindrance to our understanding of the etiology of pneumonia. It permits, even compels us to give due weight to all of the so-called predisposing, secondary, or accessory causes of this disease, causes often so manifestly operative that they may seem to be, as they were once believed to be, the efficient causes. Pneumonia is one of those infectious diseases in which predisposition is an important etiological factor. In what way such predisposing or secondary causes as exposure to cold, season, climate, winds, hygrometric states, pre-existing disease, alcoholism, old age, traumatism, occupation, etc., act in favoring the onset of pneumonia we do not know.

We can imagine, Prof. Welch says, that some may enhance the virulence of the pneumococcus, or facilitate its ingress to the deeper air-passages, or render the pulmonary tissues less resistant to its invasion and multiplication, or weaken the general insusceptibility of the system. Certain diseases, notably measles, and perhaps influenza, have

been found to be associated with exaltation of virulence of pneumococci contained in the mouth. We can not say how often infection resulting in pneumonia is due to pneumococci received from without, as would seem to be the cause in some instances of epidemic and contagious pneumonia, or to pneumococci already present in the body. The pathogenic possibilities of this variable organism are manifold.

It is a noteworthy fact, continues Welch, of Johns Hopkins, that the *complications* of croupous pneumonia, in contradistinction to those of typhoid fever, and many other diseases, are in the majority of instances referable to the same micro-organism which causes the primary disease. Complicating pleurisy, pericarditis, meningitis, peritonitis, endocarditis, nephritis, enteritis, parotitis, arthritis may all be due to special secondary localizations of the pneumococcus. In fact each of these and many other local inflammations may be caused by the same organism, independently of the existence of pneumonia as either a primary or secondary affection.

We owe to Jurgensen the distinction between primarily and secondarily asthenic pneumonia. So far as the secondarily asthenic pneumonias are concerned, that is, pneumonias which assume an asthenic type as the result of alcoholism, old age, pre-existing disease, or debilitating influences, it is not necessary to assume any increased virulence on the part of the infecting pneumococci. The greater gravity of the symptoms can be explained by the lessened resistance of the system to the pneumococcus and its poisons. There is more reason to assume more than ordinary virulence on the part of the pneumococci in primarily asthenic pneumonias, especially in times and places where nearly all who are attacked, including the previously vigorous, acquire the asthenic type. The extraordinary variability in the degree of virulence manifested by the different varieties of the diplococcus pneumoniae renders this view permissible. Nevertheless, even under these conditions, *it is possible* that the *asthenic type* is due to influences which, acting perhaps upon many persons in a household or community, weaken resistance to the pneumococcus. Although enlightened physicians have often recognized that the gravity of acute lobar pneumonia can not be measured by the extent of the pulmonary inflammation, nevertheless it is not uncommon to find writers even at the present day who *attribute* the *principal* dangers of the disease to such elements as hyperemia of the lungs, accumulation of inflammatory products, obstacles to the pulmonary circulation, removal of lung substance from the respiratory function. (Welch.)

Indications for treatment are sometimes based chiefly upon the *mechanical* conception of the disease. Evidently, says our authority, if pneumonia is a specific infectious disease, the micro-organism which causes it is widely distributed, and the development of an attack depends rather upon secondary predisposing and exciting causes than upon the accidental introduction of the specific agent. It can not be maintained that the disease, as a general rule, is transmitted from individual to individual, that is by personal contact. Clinical experience is entirely opposed to this view, although we have ample evidence that it may occur as an epidemic among the individuals who are exposed to the same conditions of environment, as in jails, barracks, etc. We have numerous records of village epidemics, and of epidemics confined to single houses. In outbreaks of this character, as in epidemics of typhoid fever, of cholera, and of yellow fever, there is a succession of cases occurring at different intervals, but it does not follow that these cases bear any direct relation to each other. On the contrary, every thing indicates that, as in the diseases mentioned, in the presence of the infectious agent, common predisposing causes relating to the environment, acting upon persons having various degrees of resisting power, induce attacks at various intervals; or it may be that in the presence of the specific cause and predisposing influences an exciting cause, such as exposure to cold, alcoholic excess, etc., is the immediate factor in the development of an attack. It is a well-established fact that pneumonia prevails over a wide area of the inhabited surface of the earth, and that by far the larger number of cases occur independently of any recognized connection with previous cases, and often under circumstances in which such connection can be very positively excluded. We must then conclude, as stated at the outset, that if pneumonia is a specific infectious disease the micro-organism which causes it is widely distributed. (Welch.)

But now, gentlemen, if we have learned the cause of pneumonia, let us then betake ourselves to another task and ask right seriously, is acute pneumonia an inflammation of the lungs? Have you thought of it? What evidence of inflammation do we find there? Heneage Gibbs sprung this question upon the Michigan State Medical at its last spring meeting. Does he answer it? Let us see if he does. "Acute inflammation as a disease process sets up the same change in whatever part of the body it occurs, modified only by difference in structure. One of the principal features of this change is the stopping of the circulation

through the vessels of the affected part, and this part is, as it were, mapped out by the leucocytes which have passed by diapedesis from the vessels into the surrounding tissues; the important point about the disease process being *that all parts affected by it* take part in it, and are deteriorated by it, and, if it goes far enough, are ultimately destroyed. The process, however, is the same in all cases. Let us now turn to those morbid changes in the lungs which are excluded by the definition (Fagge's, you'll remember,) given of acute pneumonia. They are broncho-pneumonia, suppurative or infectious pneumonia, and traumatic pneumonia. Let us take typical cases of these. In broncho or lobular pneumonia we have a condition where inflammation commencing in the air-tubes passes from the bronchioles into that portion of the lung connected with the affected tube and produces a consolidation of the lung substance. Where an affected lobule is lying by the side of one not affected, the inflammatory consolidation is seen to be limited by the septum separating them. The size of the consolidation depends on the number of lobules involved in the inflammatory process. He continues:

Suppurative or infective pneumonia is caused by particles carried into the lungs in the blood-stream and lodged in some of the small vessels. If these particles contain micro-organisms, they at once increase and multiply and set up a local inflammation where they lodge. This goes through the usual stages and results in the formation of abscess.

Traumatic pneumonia is an inflammation set up by any injury to the lung substance in the same manner that it would be in any other part of the body. "If we examine sections of the lungs in these conditions, we find that the morbid process in all is the same, modified only by the circumstances of the case. In all the inflammatory process has resulted in the same product. The lung substance is entirely obscured by the mass of leucocytes which have passed out of the blood-vessels. In the cases of abscess formation, these have broken down and a collection of pus has resulted. We have in acute pneumonia a condition where none of the usual symptoms of inflammation occur. It commences suddenly, with a rigor and pyrexia, lasts a few days, and then suddenly leaves, the accompanying consolidations undergoing resolution, sometimes before, sometimes after the crisis, and the lung is left in a healthy condition. Some writers state there are no sequelæ of pneumonia. This may be so in an otherwise healthy subject, but we have all seen cases in which the consolidation in a portion has not cleared up but has remained as a foreign body and set up fibrous change, the so-called fibroid phthisis."

If we now examine a case of broncho-pneumonia we find a consolidation produced by inflammatory action, the case having all the symptoms of inflammation, the condition in the lung being also produced by a direct extension of the inflammatory process from the bronchioles into the lung substance, the morbid process involving all the structures and producing a consolidation formed of organized products and not an exudation from the blood. In this disease we have a common termination in caseation of the consolidated portion, if the inflammatory action has been sufficiently intense to destroy the lung substance, and the result is pulmonary phthisis, this being an inflammatory process from the beginning to the end.

If we now contrast the treatment given in the text-books for these two diseases, we find a very marked difference. Taking Osler, the oracle of three cities, Philadelphia, Washington, and Baltimore, he states that "acute pneumonia is a self-limited disease and runs its course uninfluenced in any way by medicine. Even under the most favorable circumstances it will terminate abruptly and naturally without a dose of medicine having been administered." On the other hand, he says of broncho-pneumonia, a genuine inflammatory disease, "The frequency and seriousness of broncho-pneumonia renders it a disease which taxes to the utmost the resources of the practitioner." Taking these into consideration, ought we not to consider that broncho-pneumonia is inflammation of the lungs, and not acute pneumonia? Then, we ask, if acute pneumonia is not an inflammation of the lungs, what is it? If we consider a typical, uncomplicated case, we find that it is initiated by a well-marked rigor. I take it that the rigor is produced by some toxic agent in the blood acting on the vaso-motor center so that a spasmodic contraction of the arterioles is produced, cutting off the blood supply to the periphery and therefore causing congestion of the brain and spinal cord. This, then, points to a changed condition of the blood; and cases which are on record, where carbolic acid when administered in large quantities has produced a typical pneumonia, would seem to support this view. Is it possible that acute pneumonia is a specific disease, where the solidification of the lungs represents an endanthem in the place of the exanthem, as seen in such a disease as measles?

I have reviewed Dr. Gibbs extensively, that you who have not seen his article may observe the trend of thought of our worthy western colleague.

With Laennec there began a new era in the theory of inflammation of the lungs; why not at Ann Arbor? In the construction of this

(Laennec's) theory France and England took a temporary precedence of Germany, where a long time elapsed before these views were generally received and acted upon. They were opposed by the old men. Modern science has no metes and bounds, and is still testing its strength with the primevals.

Our time is so limited that we can not linger any longer here, but must hurriedly say a word about the mortality of pneumonia. Statistics are deceptive, especially hospital ones, from the fact that old persons and young children are not admitted to these institutions. In New York in 1892, 13 per cent of all the deaths were due to this disease; in Brooklyn, 11 per cent. During the first week in March more than 23 per cent of all the deaths were caused by pneumonia. In other words, in every four who died one died of pneumonia. With infants and young children, up to the age of three or four years, pneumonia is more or less fatal. In adults it is an easy thing to recognize pneumonia, but in young children this is by no means an easy matter. Untold thousands are now under the sod who were said to have died from worms, teething, convulsions, etc., when in reality the cause was undiagnosed pneumonia. The symptoms in the aged often are so masked that a mistake in diagnosis is often made. Women are not as subject to this affection as men, about 1 in 10, and when smitten, their habits being better, they stand a better chance of recovery. It rarely occurs in pregnancy, but when it does abortion is the result, and this complication is very fatal. The rare occurrence of pneumonia in the female is difficult to explain. It appears to me that under the theory that it is purely an infectious disease, and that the weather and the climate have nothing to do with it, we have here a missing link which I wish some one would elucidate.

Prof. William Osler, in a very interesting paper on "Mortality in Pneumonia," quotes the rate obtained in the Pennsylvania General Hospital during 1885, 1886, and 1887 as 36.25 per cent, and of all the cases since 1845 it was 29.1 per cent. Also, at the Boston City Hospital he says they report a death-rate of 29.1 per cent, when all the cases for the past thirteen years are considered. In the New Orleans Charity Hospital, in a series of nearly 4,000 cases, he quotes them as reporting a mortality of 28.01 per cent. As shown by statistics, the average mortality is 28 per cent. But what physician in this country, in private practice, has a mortality of even 15 per cent? I do not know of any. In view of the great mortality of pneumonia its treatment is a question of pre-eminent

importance. If there be any truth in the mortuary statistics of this disease, we are driven to the irrefutable conclusion that with all our boasted progress and advancement in the knowledge of the etiology and pathology of pneumonia—with all the light shed upon it by the microscopist, demonstrating the fact of the presence of the pneumococcus and its pneumotoxine which produces the disease, and they generating the anti-pneumotoxine which produces the cure, there is something radically wrong in the treatment as pursued by many in the past.

Regarding it as a self-limited, specific disease, and not a local inflammatory action as formerly, the different stages representing only local manifestations of a constitutional malady, with the tendency to death from exhaustion or heart failure, the indications for treatment are usually plain, if we will but obey the first law in therapeutics and seek to do no harm. But I must tell you first of a specific treatment invented by the Klemperers, not that you will adopt it, but as a matter of curiosity. They found that rabbits vaccinated with varying strengths of bouillon cultures of the pneumococci became immune against stronger injections. Then they isolated an albumose pneumotoxine, which being injected into rabbits and man produced febrile symptoms similar to pneumonia; in previously inoculated rabbits the pneumotoxine had no effect. In addition they found that the effect of the injections of cultures of pneumococci was promptly antagonized by the injection of serum of men rendered immune by a recent attack of pneumonia; the time that had elapsed in the men from whom the serum was obtained after crisis varied from one day to three months, and in all these cases the same results followed the injection of the serum. The explanation of these facts was that the blood of immune persons contains a substance which they called anti-pneumotoxine, antidotal to the pneumotoxine, developing during the course of the disease, owing to some action of the pneumotoxine upon the serum, until it is present in sufficient quantity to neutralize the pneumotoxine, and thence persisting during the period of immunity. The Klemperers report six cases with the crisis appearing in from six to twelve hours after injection, with slowing pulse and respiration. The quantity of serum was from four to six cubic centimeters. Other Germans report equally good success. However, as before remarked, many of you will not give this plan a trial.

Our science has not yet become so exact that we can say with certainty that this or that remedy will be the appropriate one for a given case. Even the physician of large experience who has learned to make

the most of what is at hand, can not afford to ignore any measure, however trivial, which has been found helpful in practice. It is fair to assume that nearly every physician has his mind made up as to the management of pneumonia—a plan satisfactory to himself—at least orthodox; yet there is some disagreement of opinion, and it is only reasonable to say that if some are right, others may be wrong. New remedies have been sought after. First one and then another has played its rôle in pneumonia with but indifferent success. Bleeding, vomiting, sweating, blistering, poulticing, depleting, stimulating, and all general plans of treatment have been faithfully carried out, and found to be followed by a large proportion of recoveries; but in how many cases the recovery is rather in spite of than in consequence of the treatment employed, may be open to question.

The first abnormal symptom observed, after the premonitory chill has warned us of pneumonia's approach, is the quickening of the pulse and the consequent increased flow of arterial blood; there is a distension of these vessels; the plasma layer of the veins also is filled with multitudinous white corpuscles, and the walls of the veins, irritated by the friction of increased circulation, exhibit here and there a white corpuscle adhering to their tenacious sides, which finally penetrate them; and a glance at the capillaries would not only show the white but also the red globules forcing their way through the overdistended walls, until the surroundings become engorged by their extravasation, and the initiatory work of hepatization has commenced. What are we to do at this stage to check this flow of blood in the lungs? Reducing the temperature will not accomplish the work; it does not save in pneumonia as in idiopathic fevers. We must occupy the rational, conservative position of making way early for the symptoms which follow. Outside of the specific infection the treatment of pneumonia is the treatment of an overworked, overdistended right heart. Our main object is to keep this strong and relieve the venous vessels by dilating the arteries and equalizing the blood current. This is well done in the first stage by aconite. This remedy says to the wildly pulsating heart, so far or so fast shalt thou go and no faster; it acts as a quieter to its movements and force and so lowers blood-pressure and pulse-rate by a direct action on the heart muscle. There is no evidence of its possessing any direct influence on the vaso-motor system. It lowers temperature by increasing heat radiation, and prepares the heart for the struggle which is to come. If we can attain the point of holding the pulse below 80 in

adults, or in children from 100 to 120, patients need not apprehend any danger. With the pulse at 80 there will be no extravasation of blood; if no extravasation, there will be no consolidation; if no consolidation, there will be no hepatization; and if no hepatization, there can be no suppuration, mortification, or death.

After the first stage, however, aconite is considered dangerous, and as its action on the vaso-motors is slight, it had better give way to some of the vaso-dilators. Nitro-glycerine here is the sheet-anchor. Where we have cyanosis, labored breathing, mucous râles, rapid, weak pulse, and all the signs of a rapid, weak heart, with a decrease of the accentuation of the pulmonary second sound, nitro-glycerine will so distribute and equalize the blood current, emptying the veins and filling the arteries, that it sometimes appears magical the way the bad symptoms disappear. (Turnbull.) The pulse is not a guide for its administration; as soon as the pulmonary valve sound begins to weaken it should be pushed. As the fever of pneumonia seldom requires treatment we must inveigh against the use of the chinoline group. Opium is the only remedy when pain is excessive. Husband the strength of your patient; keep your thermometer in your pocket; watch the pulse, which is of great importance. Cardiac stimulants in some cases are early demanded, and good whisky stands at the head of the list. Beware of digitalis in overdilatation of the right heart.

Strophanthus, caffeine, and nitro-glycerine can be relied upon to tide the patient over the crisis. If you believe it is not the overwork of the heart that produces the heart failure, but the toxic influences that bring about this condition, the poisons which result from tissue metabolism induced by the action of pneumococci, strychnia then is the remedy, as it is said to antidote the inhibitory action of this poison; and this, with alcohol and quinine, is all that you will need. Alcohol is a food, is a vaso-motor dilator, any excess is oxidized and easily thrown off, does not clog the system, and is a direct cardiac stimulant. For cough alone the pulvis Doveri is invaluable. For the insomnia the chloral hydrate, which needs to be watched, is a good remedy, but there are others equally as efficacious. Convalescence is usually rapid, and recovery complete. To sum it all up, the treatment in each case of pneumonia is a good touchstone of the general information and skill of the practitioner and of his power to observe and to apply general principles.

**THREE BORDERLAND HEROES: KING LEAR, HAMLET, AND
TIMON OF ATHENS.**

BY JAMES WEIR, JR., M. D.

The insane or partially insane subject has been the source of most abundant inspiration to the writers of fiction. Poets and dramatists have made him the central star in their stellar systems around which the lesser lights revolve and perform their destined orbits. There seems to be in the minds of men an instinctive awe of any thing that appertains to the insane. In olden times a disordered mind was considered of divine or diabolic origin, as it evinced good or evil tendencies, and even in this enlightened age men are accustomed to consider insanity rather from its psychical standpoint than from its physical aspect. They do not take into consideration the fact that insanity is due to a physical lesion, and that its vagaries are but the symptoms of brain disease or brain deformity. The inhabitants of the borderlands of insanity are invested with a certain shadowy mystery which separates them from the rest of mankind, and which makes them appear to us as denizens of another psychical world than ours. The writers of fiction recognize this metaphysical dyscrasia in the minds of readers and pander to it. The borderland hero is of surpassing interest when made to exhibit his vagaries by a master of fiction, and no writer has ever lived who has made a greater success with him as the central figure in the plot than Shakespeare. Of all the borderland heroes the one who appeals most to our pity and sympathy is that loving father and unfortunate king—"ay, every inch a king!"—the weak and tottering Lear. Lear was the victim of senile dementia, and no alienist of to-day can give a truer picture of this disease than Shakespeare has given in his immortal delineation. The play opens with a distinct statement by Lear that he is old, and that he feels the approach of death; he wishes therefore to give up the cares of State:

Know that we have divided
In three our kingdom: and 't is our fast intent
To shake all cares and business from our age;
Conferring them on younger strengths, while we
Unburthen'd crawl toward death. [*King Lear, Act I, Scene I.*]

One of the first symptoms of senile dementia is this recognition of failing virility and the fear of approaching death. Shakespeare was a

close observer and an exact delineator of the entities. He here places in the mouth of Lear words which clearly indicate the coming mental overthrow. The Fool is the first to recognize the irrational in his master, and early apprizes him of the fact:

Sirrah, you were best take my coxcomb. [Act I, Scene 4.

Here is another wonderful evidence of the great author's exactness. Dwellers in the borderlands quickly recognize mental dyscrasias in others, though living in ignorance of their own intellectual obliquity. With wonderful fidelity the dramatist carries Lear through the varying phases of senile dementia to the complete and final overthrow. Here and there the kingly dignity crops out, and Lear shows something of his former mental acuteness. Intermingling with these sensible and intellectual utterances are the inane drivings of a mind weakened by disease and tottering to its fall. After exacerbations of madness there are intervals of lucidness in the dementia of the aged. Shakespeare brings this out in the play, and clearly shows also the mental dullness which generally exists:

LEAR: Pray do not mock me;
 I am a very foolish fond old man,
 Fourscore and upward; and, to deal plainly,
 I fear I am not in my perfect mind.
 Methinks I should know you, and know this man;
 Yet I am doubtful: for I am mainly ignorant
 What place this is; and all the skill I have
 Remembers not these garments; nor I know not
 Where I did lodge last night. [Act 4, Scene 7.

The play closes with the death of Lear, whose mind has become totally and utterly deranged.

In my opinion, Hamlet, notwithstanding the fact that he feigned insanity for certain purposes of his own, was really the victim of latent lunacy from the very beginning of the play. Some critics hold that this feigned insanity was real insanity, while others hold that he never once lost his mental equipoise, but was sane from the beginning to the end of the tragedy. It is my belief that the poet intended to convey the idea that, though feigning insanity, unconsciously to himself, Hamlet's mind was really impaired. This latent lunacy lasts until the mimic play, when the overwhelming evidences of guilt shown by his uncle blows this latent spark into full flame, and his mind becomes completely

unbalanced. No absolutely sane man will ever entertain the idea of suicide for a single instant, yet Hamlet was only restrained from committing this act by his religious scruples :

O that this too, too solid flesh would melt,
Thaw, and resolve itself into a dew!
Or that the Everlasting had not fixed
His canon against self-slaughter!

[*Act 1, Scene 2.*]

The disgusting and unnatural haste of his mother in wedding the brother of her dead husband was terribly distressing to the finer sensibilities of Hamlet. He felt that his father's honor had been stained, and that he himself shared in this dishonor. Hamlet was of a pure, noble, and highly religious disposition, and had he not been dominated by these feelings his latent lunacy would have been fanned into an irresistible impulse, and his desire for suicide would have culminated in self-slaughter. If he had been entirely sane he would have punished the murderer of his father at once. He shifts and turns, doing nothing, yet continually reminding himself of his great mission in life—the punishment of his father's murderer. Indeed, this very vacillation is pathognomonic of latent lunacy. A careful study of the play will show that complete insanity is not developed until after the mock play. Instead of a systematic conduct after he discovers his uncle's guilt, he becomes inconsequent and irresolute. He seems to forget his purpose and to resign himself to the current of events. He says to Laertes :

Give me your pardon, sir : I've done you wrong ;
But pardon it, as you are a gentleman.
This presence knows,
And you must needs have heard, how I am punish'd
With sore distraction. What I have done,
That might your nature, honor, and exception
Roughly awake, I here proclaim was madness.

[*Act 5, Scene 2.*]

The very fact of Hamlet's declaring that the acts done while he was feigning madness were the acts of a madman is proof positive that he is really insane at the time when he makes this declaration.

It is a mooted question with alienists and psychologists whether or not misanthropy should be placed among the mental dyscrasias. I think that it should be so classed. Man is essentially a social animal, and any mental bias which tends to make him antisocial must be the result of morbid brain action. Shakespeare has given us a splendid

picture of the misanthrope in Timon of Athens. Timon's extravagance and evident licentiousness showed that he was a dweller in the borderlands even before the loss of fortune occasioned his mental vagaries to take that form of intellectual distemper termed misanthropy. His mental weakness is clearly shown in the opening scenes of the play where his foolish expenditure of enormous sums of money is fully described. Timon was a genuine misanthrope. His hatred was directed against man alone, not against his country nor against his life. He says to Alcibiades :

TIMON: The gods confound them all in thy conquest;
And thee after, when thou hast conquer'd!

ALCIB.: Why me, Timon?

TIMON: That by killing of villains
Thou wast born to conquer my country.
Put up thy gold: go on—here's gold—go on;
Be as a planetary plague, when Jove
Will o'er some high-viced city hang his poison
In the sick air: let not thy sword skip one:
Pity not honor'd age for his white beard;
He is an usurer: strike me the counterfeit matron;
It is her habit only that is honest,
Herself's a bawd: let not the virgin's cheek
Make soft thy trenchant sword; for those milk-paps
That through the window-bars bore at men's eyes
Are not within the leaf of pity writ,
But set them down horrible traitors; spare not the babe,
Whose dimpled smiles from fools exhaust their mercy.

[*Timon, Act 4, Scene 3.*]

Timon's madness is genuine, not feigned. After he has found an enormous sum of gold, and is able in consequence of his find to renew the pleasures of the world, he refuses so to do. When Apemantus says:

This is in thee a nature but infected;
A poor unmanly melancholy sprung
From change of fortune—

[*Act 4, Scene 3.*]

Timon shows him the gold and drives him forth with bitter revilings. He remains a dweller in the borderlands as long as he lives, and when he dies he makes his tombstone bear record to his hatred of men.

Reports of Societies.

THE LOUISVILLE SURGICAL SOCIETY.*

Stated Meeting, January 8, 1894, Dr. A. M. Vance, President, in the chair.

Dr. Turner Anderson (Tuberculous Ulceration): This patient is Mr. W., who was before this Society some time ago suffering from an indurated ulcerated spot on his wrist. It was thought at the time to be tuberculous in character, and, as was suggested, he was put upon a constructive line of treatment, which was followed by very favorable results. The ulcerated surface was thoroughly curetted and packed with iodoform gauze. One curious feature to me is that, regardless of the thorough curettement of the wrist, one vein will be observed coursing across the eschar.

Less than six months ago he was taken with a similar induration on the instep, and it was necessary to incise it in two places. It possessed the same indolent character as the sore on the wrist. After a while it became necessary to make a counter-opening on the side of the foot. You will observe there is still considerable induration, but the discharge is very slight. He suffered at one time with adenitis of the groin, which went through the same course as this. There is no history of specific disease, which makes the case one of extreme interest. It shows the involvement of some form of infection attacking the glandular structures one after another.

Another point in the case which has interested me very much is that during Christmas week he was suddenly seized with violent pain in the right lower belly. Upon examination I detected an exquisitely tender, slightly movable tumor just within and above Poupart's ligament, at the termination of the internal abdominal ring. He has never had any indications of hernia. He had some dysenteric symptoms, nausea, etc., with a temperature of 102° F. The trouble lasted for several days, then gradually subsided. An examination of the patient now reveals, by the most careful manipulation, simply the remains of the tumor which so suddenly appeared.

2. (Knee-joint Surgery.) About the 22d of last November this patient, Mr. R., received an injury to the knee-joint. Being in bed

*Stenographically reported by C. C. Mapes.

with the grip, the patient was seen by another surgeon. After I had recovered the man came to see me, and I at once recognized a form of injury with which I consider myself somewhat familiar—a rupture of the internal lateral ligature of the knee-joint.

3. (Intra-abdominal Tumor.) This young man, Mr. C., has an intra-abdominal tumor which is freely movable. Three years ago he had the misfortune to be struck in the side, and since that time he has not been in very good health. From a short time after the receipt of the injury he suffered with diarrhea and distension of the abdomen. He went along following his vocation, which is that of trainer or superintendent of a racing stable, traveling all over the country. Some six weeks or more ago he sent for me, and I requested an examination in bed. He called my attention to this movable tumor, situated immediately in the median line between the ensiform cartilage and the umbilicus. It could be outlined more perfectly in that situation than any other point; it could be carried, however, from one side to the other. I thought I could carry it further to the left than to the right side. For some weeks prior to my seeing him he had been unable to take any food, vomiting every particle of solid food taken into the stomach. I advised him to take a liquid diet. I also advised him to consult the physician who had made a diagnosis in his case. After learning of this diagnosis he had consulted several other physicians. He is now living upon a liquid diet; for five weeks has subsisted almost entirely upon milk.

Dr. W. L. Rodman (Epithelioma of Penis): This gentleman is forty-one years of age. I was first called to see him about three years ago; he was then in a condition of paraphimosis; his organ was about to slough, and I incised it thoroughly. My recollection is that I did not circumcise him, but simply incised it on top. Since that time he has had an ulcer on the penis which comes and goes; sometimes heals up almost entirely, then becomes covered with scabs; the scabs peel off and the ulceration is as marked as before. It is exceedingly offensive, nocturnal pain is very severe, and the question is, what treatment should be instituted? There are no enlarged glands, and there have been none at any time.

Dr. E. R. Palmer (Obstinate Serpiginous Sores): This patient is Mr. T. R., who has been before this Society on three or four previous occasions. I simply bring him here to-night to show the result of complete excision of the obstinate serpiginous sore in the right groin and

a thorough curettement and cauterization of the sore on the penis just back of the glans. Both sores, as you will notice, have entirely healed, and the result is perfect.

Dr. I. N. Bloom (Case of Psoriasis): This patient was shown to some of you at a meeting of the Clinical Society in November last. He was suffering from a case of very general psoriasis, the most extensive I have ever seen in private practice. The surface of the whole body was affected. In treating him I gave large doses of iodide of potassium. As a local application I used a ten to twenty per cent ointment of oleum rusci. Also employed chrysarobin. When chrysarobin was applied from the waist down, tar was used above, and *vice versa*. He has also had some eczema, which has been anointed with Lassar's paste. A complete cure has been effected in a little over six weeks. This is the second attack in which I have seen him, the former being two years ago.

DISCUSSION OF DR. ANDERSON'S CASE OF "TUBERCULOUS ULCERATION."

Dr. J. M. Mathews: I think the first case shown by Dr. Anderson is undoubtedly one of tuberculosis, and with the recent advances on that special subject I believe the practice should be, and as a rule it is, a thorough curetting of every spot that shows any affection. It is not uncommon that we find men suffering from tuberculosis of structures of any portion of the body. A short time ago a gentleman was referred to me with a tubercular ulcer in the rectum. This man showed no evidence of general tuberculosis at all. By reason of exclusion I believed it was tuberculosis, and so told his brother-in-law, who is a noted physician in this city. The patient was sent to California, and in less than three months after that time he developed lung trouble, rapidly lost flesh, and is now a confirmed phthisical subject.

Dr. W. C. Dugan: I agree with Dr. Mathews that the curette should be brought into use in cases of the character under discussion, especially where you can be reasonably certain that you can remove all the tuberculous tissues. But rather than stop half way I would not use it at all, for with it you open up the tuberculous tissue, and if you fail to remove all of it you then subject your patient to a risk of general tuberculosis that is hardly warranted. This has been observed in resections of joints by many writers. Where curetting can be thoroughly done, however, I believe it should be practiced.

I would like to mention again the injection of hot iodoformized oil in these cases and report a case or two treated at my clinic at the Louis-

ville Medical College. One was a child, that several members of the Society will remember, having tuberculosis of the hip-joint involving the acetabulum, with an opening into the pelvis through it, and the question of amputation had been considered. I saw the case with another physician; we opened up the parts while the patient was anesthetized, and we thought that excision would be the best we could hope for. But feeling that it was best to try the injection of hot iodoformized oil before excising, as there was no risk in it, this procedure was carried out, and I am glad to report that the child has entirely recovered, with an ankylosed hip, of course. The results in several other cases I have treated lately by this method have been so satisfactory that I am very much encouraged. I use a very strong emulsion, making up a mass as thick as batter, then with a very stout rubber syringe force it into the tissues, using as much force as the patient will tolerate.

Dr. Palmer: I beg to take issue with every member of the Society that has spoken. I am exceedingly skeptical about these conditions of cutaneous tuberculosis. I believe that the trouble in the case shown by Dr. Anderson is inherited syphilis. There is no reason in the world why it should not be. There are a great many recently recorded cases of persons from eighteen to twenty-five or twenty-eight years of age who have developed hereditary syphilis. The young man's age is such that the inguinal adenitis eight years ago would almost exclude personal infection in the case. As I say, my skepticism is very great as regards these cutaneous tuberculous affections that are so much talked about—tuberculous glands, etc., which used to be called scrofula. Of course we recognize the impossibility of impugning the veracity of the father or mother in such cases; we recognize that we could not possibly get a history with which we could back up the charge of hereditary syphilis in these cases. This young man, to my mind, represents a rapidly becoming frequent group of cases, becoming frequent because we are looking after and finding them and diagnosing them as hereditary syphilis in adults. I believe he presents the exact characteristics of hereditary syphilis as it develops in the adult at from eighteen to twenty-five years of age.

DISCUSSION OF CASES EXHIBITED BY DRS. RODMAN AND PALMER.

Dr. A. M. Cartledge: In the case shown by Dr. Palmer we have one of considerable celebrity, and there are some very interesting features about it, especially the difficulty with which it was relieved, for several

months resisting all forms of treatment. When I first saw the case I thought it was one of so-called lupus or cutaneous tuberculosis, and suggested in the discussion the radical treatment for it—excision or very complete use of the curette. It seems that something on this order was resorted to, excision of the sore in the groin and thermo-cautery on the sore of the penis.

I am in doubt as to whether the case shown by Dr. Rodman belongs to the same class; I should look upon the case with considerable suspicion. I think the first thing in order would be to remove a piece of tissue from the prepuce by means of the scissors or knife and submit it to a thorough microscopical examination.

Dr. H. H. Grant: I did not see the case reported by Dr. Palmer until to-night, and am surprised to see the beautiful result. Complete primary union all along the cicatrix is not an easy thing to accomplish in these cases.

The case shown by Dr. Rodman presents very strong evidences of epithelioma, and I would hesitate before undertaking any measures that would act as an irritation on it. The plan suggested by Dr. Cartledge seems very wise; if the microscope proves it to be malignant, then early amputation would be the proper procedure.

Dr. Palmer: The case before us to-night (T. R.) has been of greater interest to me than any that has come under my observation for years, from the fact that he was fourteen months under treatment; further, that for eleven out of the fourteen months the proper treatment was not instituted; that is, I was not as radical in my work as the results demonstrate was necessary.

When I first examined the case shown by Dr. Rodman I was struck with the difference; the gluing together or adhesion of the parts, the growth of the foreskin to the penis, and the locking in of the morbid growth into the tissue proper impressed me with the idea that the trouble was certainly malignant, and would require a most extreme measure to save the organ. I would not advocate amputation of the penis as a first resort, but would hope for relief by the thorough application of electro-cautery.

Dr. Rodman: There is little or no doubt as to the pathology of the case presented by myself. It is not a typical case in some respects, yet I am well convinced that it is an epithelioma, and am glad to see the unanimity of opinion expressed. The fact of the extensive character of the adhesions between the prepuce and glans penis, further-

more, the decided elevation and induration of the edges of the ulcer, indicate to my mind very clearly that it must be epithelioma; it could not well be any thing else. The chronicity of the case without more general symptoms is somewhat puzzling, and that is the principal reason for saying that in some respects it is atypical. However, believing it to be an epithelioma, I suggested to-day the advisability of amputation of the penis; I think it ought to be done. He is not willing to have the organ amputated just at present. So I propose to take him to the infirmary in a few days and, after removing as much of the prepuce and glans as I can without disfiguring him too much, shall apply locally sulphuric acid paste or chloride of zinc paste (Bougard's paste), either of which would be the next best thing to amputation.

I would not act upon the suggestion of Dr. Palmer on account of the fact that where the penis is amputated by any hot instrument, either by thermo-cautery or galvano-cautery, the mortality is just about five times as great as removal by the knife.

Dr. Palmer: What is the moral effect of advising a patient that he has a cancer of the penis, and that it must be amputated?

Dr. Rodman: Statistics show that one case out of one hundred and seventeen died from depression and shame at the loss of his organ.

DISCUSSION OF DR. ANDERSON'S CASE OF "INJURY TO THE KNEE."

Dr. Cartledge: I have seen a large number of cases like the one under discussion, and have been called upon to treat several myself. The pathology of this special injury has always been to me very interesting. Recently a female physician of Brooklyn has written an article and made some drawings illustrating this particular injury, showing that she has given the subject careful study, and I believe has thrown more light upon it than any one else. Her claim is that the insertion of the biceps spreads out at this point and is distributed between the joint, fascia, and lateral ligament, and in these cases there is sufficient strain to give rise to synovial irritation. But they are certainly very common injuries, and I agree with Dr. Anderson that this is the character of the injury in the case reported. The location of the tenderness is not a question of very great importance, because wherever you have tension of the knee-joint pain is manifested about the patella, or wherever there is extra articular pressure of any kind. I can only say my experience is that such conditions are very slow in getting well, and are liable to be followed by tuberculous trouble. In the case reported

the trouble is certainly close enough to the joint to excite a mild synovitis. There seems to be a little increase in the synovial fluid at the time. Rest and compression is probably the best treatment.

Dr. Dugan: I think there is no doubt about the diagnosis in this case; there is probably laceration of the ligament, which nearly always occurs in this class of injuries. One of the main things, as Dr. Anderson stated, is getting the confidence of the patient and impressing upon him the importance of rest and carrying out the treatment outlined. In those cases where there is great tension and considerable pain, where it is important that the patient get out in a very short time, I would not hesitate to open the joint and wash it out. I am sure time can be saved in this way, but I do not mean to say that I would advise this procedure in all cases, but only in cases where it is of the greatest importance that the patient be gotten out in a very short time. In the last two years I have treated a number of cases in this way, and have no reason to regret having opened the joint, and feel confident that the patient got well much sooner. In others I would certainly advise rest, and you can always assure the patient there is no risk from ankylosis. You can keep the limbs in one position perfectly quiet, as Phelps has demonstrated by experiments upon the dog, for almost any length of time without danger of ankylosis; there only remains a little stiffness of the muscles, which is easily overcome.

The general rule, as formulated by Sir James Paget, in the treatment of such conditions should be remembered and carried out, to wit, "If the limb is cold exercise it, if hot keep it at rest."

Dr. A. M. Vance: I believe at this stage of the case it is only guesswork as to what the original lesion was. There are a number of injuries to the knee-joint, independent of laceration of the lateral ligaments, which to my mind might bring about such a condition as this man has now. I agree with those who have already spoken, that rest is the proper treatment. I have seen many times just such a condition following the effusion of blood into the joint simply. I should think now rest combined with massage, and a little later probably passive motion, would help to bring about a favorable result in this case.

Dr. Anderson: My idea concerning the treatment in the case of knee-joint injury, that is, allowing the patient to walk about with simply a protective bandage, is based upon the fact that two cases precisely like this have been under my observation previously. The first was treated with a plaster of Paris or splint dressing and absolute rest.

That patient to-day is hobbling around with a leg badly ankylosed, which may be due to the fact that the leg was kept in one position for such a great length of time by the stiff dressing. Another case with identically the same injury was treated in the manner I advised in the case before us, massage, a bandage of the tight roller variety, allowing the patient to take a liberal amount of exercise. Although the pain at first in moving about was quite severe, it gradually grew less, and to-day the man is perfectly well; there is no stiffness of the limb, and altogether the result is perfect. Therefore I say that I believe there is danger in these cases of carrying the element of rest too far.

My reason for stating that the injury in this case, as well as the two others referred to, was laceration of the internal lateral ligament is, that it will be found by examination there is no pain exhibited by inward pressure upon the knee, but outward pressure gives the most excruciating pain.

DISCUSSION OF DR. ANDERSON'S CASE OF "INTRA-ABDOMINAL TUMOR."

Dr. Palmer: In regard to the third case exhibited by Dr. Anderson, the young man with an intra-abdominal tumor, I believe it is a normal kidney, displaced by the blow tearing it from its moorings. I could feel the hilum distinctly. It is a normal kidney in size, normal in every thing except locality—a dislocated kidney.

Dr. Cartledge: I saw the patient presented by Dr. Anderson three weeks ago, and have known him for a long time. I made an examination and found the tumor in the abdomen, which at that time was freely movable, and about the same history was given as detailed by Dr. Anderson to-night. I stated to the patient that he evidently had a growth within the abdominal cavity, but that it, like a great many other abdominal tumors, I thought, would require an incision before its nature could be definitely settled. To-night I made another examination of the tumor, and, like Dr. Palmer, I believe it is a dislocated kidney; I thought I could outline the kidney, and by giving the patient some pain it could be pushed back into the left side. I thought I could feel the hilum of the kidney. An abdominal incision is the only thing that will clear it up.

Dr. Grant: I can not agree with the gentlemen who have spoken in regard to the case under discussion. I feel a growth which is not movable to my touch, but is fixed, at least it is evidently attached to the abdominal wall and apparently on the parietal side of the omentum.

It does not seem to me to be quite as large as a kidney, and it is harder. It is nothing like so movable as a dislocated kidney would be. Although the symptoms in this case are not exactly such as would characterize malignant disease of the stomach, there is a strong suspicion in my mind that the trouble might be cancer of the pylorus pulled down in the abdomen by its weight. It might also be malignant growth of the omentum. As we all know it is almost impossible to arrive at any thing like a conclusion in abdominal growths without exploratory incision. There would be comparatively no danger in making an incision, and I think this ought to be done before it is too late.

Dr. Mathews: I must say that there are unmistakable evidences of malignancy in this case. I examined the patient, and was not able to detect the movable tumor that the two gentlemen have spoken of. Dr. Grant says that this patient does not present the symptoms of malignancy direct. In this I think he is mistaken. The patient has lost thirty pounds in flesh; it may be said that he gains flesh occasionally. Many people suffering from malignant growths frequently gain flesh. In the second place he gives evidence that he can not swallow a particle of solid food; if he takes one mouthful of solid food into his stomach he is compelled to throw it up. I must say that every symptom is against enlarged or dislocated kidney. Whatever the trouble may be, an incision should certainly be made, otherwise in less than a twelve-month I believe that some one will be called upon to make an autopsy for a case of malignancy.

Dr. Dugan: I examined this patient as carefully as I could and failed to get the mobility of the tumor that I would expect in a movable kidney. The tumor seems to be attached to the region of the umbilicus; just what it is, I would not like to say. I think exploratory incision not only indicated but demanded in this case, and should be done without delay.

Dr. W. O. Roberts: From the hasty examination I made of the case, it occurs to me that the trouble is a tumor of the mesentery; possibly it may involve the upper portion of the small intestine. I think, as Drs. Dugan and Mathews have said, that the proper procedure would be to make an exploratory incision, as it might be a tumor that could be easily removed, and there would be very little risk in the operation. From the examination I made of the tumor I should say that it is malignant. We can never tell, of course, the exact location of tumors in the abdominal cavity.

Dr. Rodman: I think the case is one demanding exploratory laparotomy. As to the two views that have been expressed as regards the nature of the trouble, in the first place no one has ventured an explanation as to why this man, who was struck in the side three years ago, should only notice an enlargement six weeks ago. That, I think, is significant. No one has spoken of the fact that a floating kidney is of very exceptional occurrence in men. No one has said that when they do occur in men they are nearly always on the right side. Now, like Drs. Grant, Mathews, Dugan, and Roberts, I fail to find any great mobility of the tumor. You can not push the growth very far to either side of the median line. In the second place, it does not feel to me more than half as large as a kidney. I am very certain that I can not map out the hilum or any border of the kidney. I fail to understand how a floating kidney would cause the severe gastric symptoms manifest in this case, and I utterly fail to understand why this man should have lost as much as thirty pounds in flesh from the presence of a floating kidney. I think the case is evidently one of tumor, probably malignant, and I am very much disposed to think it a tumor of the omentum.

Dr. Vance: While I did not make a very careful examination of this patient, I do not think the tumor is a kidney. In the first place it is fixed to a certain degree, and is too hard to be a kidney. I have never seen a movable kidney that could not be replaced in the normal position by careful manipulation, but of course it might not remain there. This tumor certainly is attached to something, probably the abdominal wall; it can be pushed from one side to the other, but this is probably due to the laxity of the abdominal walls, and I admit that I do not know what it is. I agree perfectly with the other speakers that an exploratory incision is demanded at once, and believe the growth will be found malignant.

Dr. Anderson: In closing the discussion, first of all I wish to say that I believe the growth is malignant. I think it is connected with the stomach, with the pyloric orifice in all probability, and that part of the stomach has been drawn down from the natural position. When I first saw the patient the tumor was higher. I believe the patient himself had discovered the lump, as he called it, some time before I saw him. Now, I do not believe it is a movable kidney for this reason, it is far away from the situation in which we would expect to find a movable kidney, and we are utterly unable to replace it. While we must admit that it is possible for a movable or a displaced kidney to become

adherent in a new situation, yet I take it this would be an unusual condition.

When the patient first consulted me diagnosis had been made by another physician of movable kidney, and the patient said he could replace it himself. When asked to do so, he made the attempt, and when he said it had been accomplished, I called his attention to the fact that he had simply carried the tumor down a little lower in the abdomen. I made several efforts myself, under the impression that it might be a kidney, to replace it in its normal position, but of course failed. I make a distinction between movable and floating kidney, the latter as we know being congenital.

JAS. S. CHENOWETH, M. D., *Secretary.*

Reviews and Bibliography.

An American Text-Book of Gynecology, Medical and Surgical. By H. T. BYFORD, M. D., J. M. BALDY, M. D., EDWIN B. CRAGIN, M. D., J. H. ETHERIDGE, M. D., WM. GOODELL, M. D., HOWARD A. KELLY, M. D., FLORIAN KRUG, M. D., E. E. MONTGOMERY, M. D., WILLIAM R. PRYOR, M. D., GEO. M. TUTTLE, M. D. Philadelphia: W. B. Saunders.

The technique of gynecological operations as portrayed in this work can not be surpassed, and although, if I am not badly mistaken, it is largely a reproduction of previous papers embodied in the Johns Hopkins reports, it will well repay any one to read them for the second time. The author very justly lays particular stress upon the method of discontinuous sterilization as applied to sponges, towels, ligatures, sutures, etc. I have been present many a time at operations where the operator (with perfect technique) used these articles after a single exposure of half an hour to steam heat under the impression that this was sufficient to kill every germ and spore present, and awoke several days later to find himself confronted by a case of septic peritonitis. After exhausting all means at his command to find the cause of this deplorable condition, and failing, he finally concludes that it must have been due to some malignant streptococci that lay deeply embedded in the rete muscosum of the unfortunate patient.

In the article devoted to diseases of the bladder, the author in my opinion is decidedly too much in favor of irrigating the bladder in the treatment of cystitis, while he rather regards the method of continuous drainage as a *dernier ressort*, only to be used after every thing else has failed.

The article on inflammatory diseases of the uterus is truly surgical, and the author shows sound wisdom in the following remark: "Brought to a

case of acute salpingitis or peritonitis, the indications are not for a brilliant removal of the adnexia, but rather to adopt that method which will preserve the woman from those gross changes in the peritoneum or adnexia for which so many colotomies are done, and to save her, if possible, from an abdominal section."

The work is fully abreast of the times, and while some of the views expressed are entirely too radical, as a book of reference it is equal to the best. It is illustrated abundantly by wood-cuts and half-tone and colored plates. A mistake I think has been made in not stating the magnification of the cuts representing the microscopical sections, as in their present condition they are worthless for comparison.

H. M. G.

A Manual of Practical Hygiene, Designed for Sanitary and Health Officers, Practitioners, and Students of Medicine. By W. M. L. COPLIN, M.D., and D. BEVAN, M.D., with an Introduction by H. A. HARE, M.D. With one hundred and forty illustrations. 441 pp. Price, \$4. Philadelphia: P. Blakiston, Son & Company. 1893.

If we were required to remark upon the shortcomings of this work, it would be, more than any thing else, to indicate an improvement that could be advantageously made in the plan. A glossary of less than half a dozen pages at the end, giving the definition and origin of the contained technical terms, would render this a most valuable book to be put in the hands of the intelligent laity throughout the country. Its usefulness could be thus increased many fold. The possibility of good that lies in the scope of hygiene has, even in the profession, only begun to be realized, and for the realization of this good it is essential that not students and practitioners merely, but the laity also, shall be educated. It is not merely contagious diseases that are to be considered, but nearly all the diseases that arise from any kind of excess or any kind of neglect that are to be guarded against by hygiene.

In this work, in the most popular manner attainable, almost every conceivable subject relating to health is considered. Drainage, building, food, drink, labor and rest, amusement, climate, ventilation, and a great number of other subjects receive appropriate consideration. The work is intrinsically interesting, as well as profitable reading, and is worthy of very high commendation.

D. T. S.

GEORGE KEIL, 1715 Willington Street, Philadelphia, announces the early publication (third edition) of the Medical and Dental Register, Directory and Intelligencer for the States of Pennsylvania, New York, New Jersey, Maryland, and Delaware. It will present not only a complete list of all medical and dental practitioners in the States named, with place and date of graduation, but also lists of professional educational institutions, hospitals, societies, etc., and will be of much practical value to all members of these professions.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Foreign Visitors; Increase of Influenza; Sir Dyce Duckworth on Temperance; Dr. Jameson; The Medical Profession; A New Discovery; Dr. Paul on Rodent Ulcer; The National Dental Hospital; Salol in Typhoid Fever; A Wonderful Escape.

Dr. Nocht, the principal Medical Officer of Health for Hamburg, and the leading Engineer of Public Health, have been officially dispatched on a mission to this country to make themselves acquainted with the details of port sanitary administration, and to specially study the question of sewage purification. They will visit the principal ports of England.

A slight recrudescence of influenza seems to be shown by the Registrar-General's return. According to the last report the mortality has been 22 as against 19. Brighton made the favorable return of 15.8, and Croydon again headed the list as the healthiest of the thirty-three large towns in England, with a mortality of only 11.2 per 1,000 per annum.

Sir Dyce Duckworth, M. D., brought down upon himself the wrath of the teetotal body, professional and laity, by his remarks upon alcohol. He was of opinion that the moderate use of alcohol had not been proved hurtful to the inhabitants of Europe, and that the most cultivated nations employed alcoholic liquors. There was no enlightened testimony to prove that the moderate use of alcohol could injure the organs of the body, although the rational use of a thing did not justify its abuse; that total abstinence was a mistake in some constitutions, and that enforced teetotalism or prohibition had no compensating effects upon intemperance; drunkards' posterity would do well to abstain, but it should be under medical advice; that impure alcoholic drinks did harm, and finally that the young should be instructed in the proper use of stimulants so as to recognize their legitimate use and be able to moderate and subjugate their appetites.

Dr. Jameson, the gentleman whose name is now so familiar to most English people in connection with the little wars with the Matabele savages in South Africa, was a distinguished student at University College, London. He took his M. D. in 1877. He was for some time house physician and house surgeon of his hospital, and it was while an officer thereat he accepted an offer to go to Kimberley. In this town he practiced for some years.

The medical papers are lamenting the overcrowding of the medical profession, inasmuch as it appears from the Medical Directory for 1894, just published, that the ranks of practitioners have been augmented by no less a number than 1,013. In effect in 1894 the directory contains the names of 31,772 as against 30,759 in 1893, and this notwithstanding that the obituary list amounts to 525. London is responsible for 5,590 medical men in practice, an increase of 183. Nearly 15,000 are to be found in the provinces, while Scotland and Ireland have between them nearly 6,000. The rest are either abroad or holding public appointments. Upon the death list are to be found many well-known names, among them being Sir Andrew Clark, President of the Royal College of Physicians, Sir Richard Owen, Surgeon-Major Parke, of Stanley celebrity, and S. D. Darbishire, M. D., Oxford, who was well known as stroke of the Oxford boat in the inter-universities race.

It is now asserted that water and milk may be sterilized by a powerful electric current, but with milk the process is the most difficult. It must be submitted to the action of a strong alternating current, which is applied to the milk in the ordinary dairy utensils. It is claimed by two Dutch savants that by this process all microbes that may be present in the milk, from whatever source they may be derived, are destroyed. The process is worked continuously by passing milk at a suitable rate through a narrow trough filled with a series of metallic plates connecting with the poles of the source of electricity.

Dr. T. Paul, while considering rodent ulcer a carcinoma of the dermal appendages, is undetermined whether hair follicles, sebaceous or sudoriferous glands were the seat of the mischief. At the recent meeting of the Pathological Society of London, Dr. Paul, in order to contrast the lesions with what was not rodent ulcer, opened a debate by some remarks upon the cases of cutaneous epithelioma. In cases of epithelioma occurring in the skin, first appeared the signs of irritation along with down-growth of epidermis, this being accompanied by up-growth of tissue, the lesion being in all cases a raised one, and not an ulcer; it began as a papilloma. Dr. Paul pointed out that rodent ulcer never began as a papilloma but as a pimple, it being at first sub-epidermal, often so remaining without undergoing ulceration for years, even as long as twenty. In two instances the epidermis was intact, the hair follicles passing through the growth unaffected, the sebaceous glands were conspicuous by their absence; he concluded that these were the starting points of rodent ulcer. Rodent ulcer spreads by the lymph spaces, the sebaceous glands, etc., being secondarily involved, from the outer aspect; the sweat glands were rarely so implicated. Although the cells and cell groups varied, as a rule the former were small, elongated, and with little cell body as compared with the nucleus; some were often spindle-shaped. There were no nests, the groups were not in trabeculae as in squamous-celled carcinoma of the skin, presenting an acinous arrangement. True nests arising from endogenous cell division were not found in rodent ulcers. All the rodent ulcers seen by Dr. Paul had been on the face; the lymphatic

glands were never affected. The disease, although mostly attacking the aged, might commence as early as twenty years of age. Men were more frequently attacked than women.

The Duke of York has opened the new premises of the National Dental Hospital, which is the gift of the Dowager Lady Howard de Walden, and has cost some £10,000 to erect. It is a handsome building, with an exterior of red brick, and comprises a large lecture hall, laboratories, special demonstration rooms, a stopping room capable of accommodating seventy-five patients, and other offices. For many years past dental surgery in this country has made rapid strides, but up to 1860, although dental surgery had formed a portion of the instruction at the great metropolitan hospitals, there were no buildings specially adapted for the pursuit of this part of surgical science. In 1860 in a small building the first dental hospital was established in London. In this narrow and cramped building no fewer than 27,902 persons had, during the past year, received relief. It is felt that the new premises will be a great boon both to students and patients.

Dr. Anderson, of Dundee, has published a method of treatment of typhoid fever by which he claims that the specific poison is rapidly and permanently destroyed in the patient, and the course of the disease arrested on the fifth day of the treatment. The prescription employed by Dr. Anderson, with much success as his results have proved, is salol 160 grains, chlo-rodyne (B. P.) 160 minims, lac bismuthi 2 ounces, aq. ad 8 ounces; for adults a tablespoonful every two hours. It is believed that by thus taking advantage of the remarkable property salol has when exposed to the alkaline secretions of the intestines, of splitting up into salicylic acid and phenol, the specific typhoid poison is antiseptically destroyed and rendered incapable of reproduction.

The first Hunterian Society Lecture is to be given by Dr. Pye-Smith, on "Rational Therapeutics," and will be delivered at the London Institution.

At one of the Glasgow railway stations this year a man under the influence of liquor was seen to fall over the buffers between two carriages of a moving train. Nearly the whole train passed over him. He was found lying on his back between the metals uninjured and calmly smoking. In reply to a question put by a medical man who happened to be present, as to whether he was hurt, said, "Not likely; why, I was all through the Crimea!"

LONDON, February, 1894.

Pediatrics.

Under the Charge of Henry E. Tuley, M. D.

THE MEDICAL CARE OF CHILDREN.—In his presidential address to the Dublin Biological Association, Dr. H. C. Drury deplotes the lack of attention given by teachers and students to what he believes to be a "distinct and separate branch of medical practice, presenting difficulties such as are met with in no other branch of medical work." He compares the general mortality at the light figure of 25 per 1,000, and the mortality among infants in the first year of life which reaches the fearful figure of 200 in every 1,000 born (Hench). No doubt much of this is quite inevitable, but, no doubt also, an enormous proportion is due to preventable causes. Two great classes of causes tend to swell this great death-roll; one, the natural development of the child's body, tending to evoke pathological conditions, for instance, the changes from fetal conditions of life, active developmental changes take place in the nervous system, glands, skeleton, teeth, etc.; second, causes largely found in their surroundings, the want of care manifested by their natural guardians, either through ignorance, want, or carelessness, foul air, bad feeding, cold, hunger, inherited disease, illegitimacy. Still I hold that much of this mortality is preventable by judicious medical treatment, and by better education, not merely of our medical students, but of the mothers and daughters of our country.

The little sufferer recites no symptoms, so we may leave our homeopathic little box at home. Here we must go to the root of the matter, for attacking the sympathetic grass will but mask the deeper ramifications of the root which gave it origin. Two great fields are patience and observation.

He notes briefly: First, that alone and irrespective of all purely medical attainments is manner. Gain the child's confidence. A kindly smile, and either silence or a word of sympathy. Your hurry may be ever so urgent, but must be forgotten; patience, quiet voice, and gentle bearing will save more time and alone gain the needed confidence. With little or no information from the parents, and no history or recital of feelings from the sufferer, success depends on close observation. Yet parents and nurses are good observers, as a rule, so we can not dispense with the recital, but must, as we listen, connect, apply, rearrange the emphases and make our own explanations, while at the same time we follow with our eyes every motion and curve of the little patient in question, and note every sound that escapes from his lips. The complexion may be clear and delicately tinted, though on the whole palid, with a faint bluish undertint as in the tubercular; if cyanosed it suggests a respiratory cause; a leaden or earthy tint, especially with great pallor about the upper lip, will be frequently found with gastro-

intestinal trouble; the swarthy (*café au lait*) though pallid face may put us on our guard for congenital syphilis; in the spasmodic stage of whooping cough the face becomes swollen, often ecchymosed, the eyelids puffy, the conjunctiva congested and bloodshot; the sunken, vacant eyes, with dark areola around them, are indicative of great collapse.

The expression is most noteworthy. The healthy child's face should be smooth and placid, unruffled by the lines and furrows which result from the passions, pains, and cares of later life.

M. Jadelot has pointed out certain lines in the infant's face which by their position indicate the seat of the derangement:

1. The *oculo-zygomatic line*, from the inner canthus of the eye downward and outward to the cheek, a little below the molar eminence, this points to derangement of the brain and nervous system.

2. The *nasal line*, from the upper part of the ala nasi curving downward and outward around the corner of the mouth, said to be never absent in gastro-intestinal derangement.

3. The *labial line* begins at the angle of the mouth and runs downward and outward; it is a fairly trustworthy sign of disease of the lungs and air-passages, and will generally be accompanied by rapidly moving nares.

We may observe also the condition of the pupils, the presence or absence of squint, and, if the child is asleep, note if the eyes are well closed, as an imperfect closure is a common sign of weakness.

The features again may help us. In rickets the head is elongated, the forehead square, the face puny, the lower jaw especially small; in hydrocephalus the head is large and globular, surmounting a small face with pointed chin; in syphilis the forehead is prominent, the angles of the frontal and parietal bones surrounding the anterior fontanelle form four long prominences which have suggested the term "natiform skull," the bridge of the nose is broad and flat, and the eyebrows very scanty or absent.

The child's attitude should also engage attention. A healthy infant lies with the limbs semi-flexed, and if on his back inclines one cheek to rest on the pillow. The attitude of the arms, and indeed of the legs, suggests the position *in utero*, the hands semi-closed and brought up to the level of the neck. When the limbs and trunk are rigidly stretched out, tetanus is strongly suggested. When the child is unconscious, or in great weakness and prostration, he will be found lying flaccid on his back with face to the ceiling. If found on his side, curled up, with head retracted, a frown will probably be seen, together with the oculo-zygomatic line, arousing a very strong suspicion of cerebral irritation, or, if there is opisthotonos, of spinal irritation. Another attitude is often assumed in abdominal discomforts and in rickets, when he persistently lies on his face, or even rests on elbows and knees. Where there is intolerance of light, as in cerebral irritation, the face will be buried in the bedclothes. In the normal state the child should lie quietly, not twitching or tossing about, as in fever; nor kicking off the clothes, as in rickets; nor spasmodically flexing and extending the legs, with suppressed cries, as in colic.

The lusty cry of a healthy child may be of hunger, discomfort, of dislike to a stranger. It is not causeless, and you should find the cause; the nimble *pulex irritans* is a simple but efficacious one. Sharp, violent fits of crying, with vigorous movements of the legs indicate colic. The sudden, sharp, single, piercing cry uttered at intervals, while the patient lies in a stupid, drowsy, semi-conscious state, is but too suggestive of meningitis, as is also the hoarse, grating cry of syphilis. In contrast to these, note when the child does not cry. In profound weakness, as, for instance, that so often brought on by diarrhea, he makes no attempt to cry; or if his discomfort is great the face contorts—the form is gone through but no sound comes—he is too weak to utter it. Again, in grave pulmonary affections breathing is too precious and the anxiety to get it too great to waste it on a long expiratory cry, so he does not, for he dare not.

Lastly, we should see if the child can or will take food, noting at the same time both suction and deglutition. Dyspnea and acute fever cause suction to be performed in short snatches; syphilis also necessitates pausing for breathing. In thrush or ulceration suction or deglutition is performed evidently with considerable pain. If the throat is sore, he coughs frequently and makes a noise with deglutition. In great prostration, if he swallows at all, it is a hopeful sign.

Expose the body, note the respiration, if it is regular or irregular, or perhaps sighing, or Cheyne-Stokes; whether there is severe dyspnea with indrawing of the ribs. If the abdomen is scaphoid or distended, the fact should be noted; also the general nutrition.

Thus we have gained most useful information from mere inspection and observation.

In making a practical examination we have real difficulties to overcome.

Dr. Drury prefers the ear or mon-aural stethoscope for auscultation, and the child in the upright position for auscultation and percussion.

Examine the head, noting the condition of the fontanelles, and, if open, whether depressed, as in prolonged exhausting diseases; or distended, as a sign of increased intra-cranial pressure. Complete closure ought to take place between eighteen and twenty-four months.

The mouth must be explored. Any resistance can be overcome by compressing the lower lip between the teeth and the finger, and if the nose is compressed at the same time he will have to depress the tongue to breathe, and so expose the fauces and back of the pharynx.

The doctor recommends taking the temperature between the scrotum or labium and the thigh, the reading being the same as for the axilla.

He also calls attention to the liability to convulsions and variations of temperature which may be associated with or without grave conditions, and unless the condition is continuous is rarely of serious import.

Mothers should be cautioned as to the baby's clothes, as to when to change them, and also as to the desirability and need of fresh air. Infants should be at all times warmly clothed, the extremities even should never be allowed to become cold.

The last and most important subject for study in the care of children's health is food. A very large proportion of the ills of early childhood are some gastro-intestinal trouble. Drugs avail you little here. First, see that distinct and well-defined intervals are observed between meals. Do not give the breast or bottle or promise sugar-candy each time he cries, thus overloading the stomach, and keep the baby in a constant state of nastiness from regurgitating milk curds.

Next, about the quality of food. Mother's milk should be our standard. No starchy food for at least the first three or four months. When teeth appear substitute the bottle for the breast, and provide light, easily-digested substances, chiefly farinaceous. Later on, a healthy child should be set down to a regular, plain, varied meal, compelled to eat slowly, and leave it immediately when satisfied. Finally, as to quantity, for the first ten days about a pint of milk will suffice for twenty-four hours, in the later months of lactation gradually increasing the amount up to three pints. Satisfy hunger, but do not overfeed.

INFLUENZA AND PEDIATRIC CASES.—Dr. J. W. Ballantyne writes entertainingly upon this subject in the *Edinburgh Medical Journal*, January, 1894, as follows:

In the new-born infant there is nothing inherently improbable in the statement that influenza may be congenital or may develop during the first days of life, for I have during the last twelve months reported cases of congenital measles and scarlet fever, and there is no reason why influenza in the mother should not in a similar way be transmitted to the fetus *in utero*. Further, I have seen at least one case lately in which the diagnosis of congenital influenza was to my mind quite clear. The mother had an attack of influenza about a week or ten days before her confinement, and the fetal heart beats were more rapid than usual (148 per minute) on the day preceding labor, so that it was expected that the child would be a female or at least a small male. When the infant was born it was found to be a large boy, and for some time respiration could not be established on account of the large amount of mucus in the mouth and pharynx. In a few hours coryza was very evident, although the child had been warmly clothed at once. A large quantity of clear fluid passed from the nose. "Snuffles" was a prominent symptom, and there was marked restlessness and sleeplessness. There was no very evident lacrymation. There was, however, no diarrhea, neither was there constipation, but the stools remained green after the usual time allowed for the expulsion of the meconium. The respiration and pulse-rate were quicker than normal, but the temperature was not much elevated. In about ten days the child was quite well.

Kormann has pointed out that influenza in children has certain peculiarities at the beginning, which in well-developed cases are usually as abrupt as in adults; fever and cerebral symptoms are of primary importance, but marked chills are rare. Convulsions and drowsiness are sometimes met with. In older children cephalalgia and pain in the back and

limbs is complained of. Complications, such as bronchitis, pneumonia, caseation of the bronchial glands, acute miliary tuberculosis, and tubercular meningitis, are more common in infants than in adults. Dauchez states that complications are rare. Disorders of the nervous system are marked, and not uncommonly eruptions of an erythematous or urticarial nature are met with. In some instances gastro-intestinal troubles predominate.

Carsten's conclusions were somewhat similar, but he thought that the disease usually began more gradually than in adults, that the cough was usually of a more or less convulsive character, and that constipation was rather more frequent than diarrhea. Boginsky states that he has met with four types of influenza in children, (1) uncomplicated, (2) with complications in the respiratory system, (3) in the nervous system, and (4) in the gastro-intestinal system.

I have personally been specially struck by a marked character of the pharyngeal, gastric, and cutaneous symptoms in the influenza of childhood. In certain instances the diagnosis from scarlet fever was rendered difficult by the presence of pharyngitis, a thickly coated tongue, and a scarlatiniform rash on the chest, but the after-history and the occurrence of other cases of influenza in the same house usually served to clear up what was doubtful. I have seen patients who showed the typical nervous phenomena (cephalalgia, facial neuralgia, pain in the back, etc.), and others who exhibited rather the catarrhal type (coryza, lachrymation, bronchitis, etc.)

PARALYSIS FOLLOWING MEASLES.—(P. A. Lop, M. D., *Gazette des Hôpitaux*, September 14 and 19, 1893.) Paralysis following measles is a comparatively rare affection, less than a hundred cases having been reported in all. This is probably due, however, to its usual transitory character and to the fact that it appears most frequently in the third week of convalescence, after the patients have passed from immediate observation. Two adult cases have been reported, but the usual time of its appearance is that of the appearance of other forms of paralysis.

In the cerebral form, which is most grave but less frequent, paralysis occurs preceded by spasmodic muscular movements and exaggerated reflexes. The electrical reactions remain normal, however, and the disease runs a rapid course.

In the spinal variety, on the contrary, the reflexes are rapidly lost, and the electric reactions are much modified, but the course is most frequently benign. It usually takes the form of paraplegia, commencing with formications and cramps, followed by retention of urine and incontinence of feces. Occasionally it is of the ascendant variety, ending in death by paralysis of the diaphragm. Its diagnosis is easy, as it occurs in convalescence from a fever; its course is rapid, from one to six weeks; the spinal form is frequent, and the patient always recovers.

Its pathology is, probably, a congestion caused by a specific bacillary toxine in the blood, which in the grave forms has produced a true inflammation and atrophic sclerosis.—*International Medical Magazine*.

Diseases of the Chest.

Under the Charge of Ewing Marshall, M. D.

AORTIC AND MITRAL INSUFFICIENCY (North American Practitioner, February, 1894).—Dr. John A. Robison in a clinical lecture says: "The only history of trouble we have was an attack of rheumatism seven years ago; consequently that brings us to the second cause of change in the valves. It is probably the result of endocarditis or inflammation of the semi-lunar valves. When the patient was attacked with rheumatism, seven years ago, it doubtless produced a condition of the valves which has rendered them insufficient ever since. *Yet the question arises here, if that was the origin of the valvular trouble, why should he have had symptoms which denote loss of compensation on the part of the heart almost ever since that attack?* That would seem to indicate there was perhaps some valvular trouble prior to that time, and that the attack of rheumatism coming on seven years ago so crippled the valves." It seems utter idleness and carelessness or a silly effort at killing time for the worthy professor to propound a question that he has already made unnecessary. Three good reasons why it is senseless:

First, If there had been a prior lesion there would have been some symptoms to mark its presence prior to the rheumatic attack.

Second. If there had been a prior lesion, unless it was congenital there would be the history of some sickness sufficient to induce crippling of the valves.

Third. Why should there be any valvular trouble prior to the endocarditis to produce the train of symptoms he calls attention to? If the endocarditis was sufficient to produce valvular derangements from the time of their production, there would arise symptoms which would more or less exist as long as the patient, unless in some way compensation should take place.

TUMOR OF THE LUNG (London Lancet, February 17, 1894).—Graham Steel, M. D., gives a most instructive case. From the symptoms and signs fibroid phthisis with pleuritic effusion was the first diagnosis, but the entire absence of moist sounds soon threw this diagnosis into question. As there was little if any evidence of pressure, symptoms seemed to dismiss the possibility of inter-thoracic tumor. Had the absence of breath sound extended all over the left lung, tumor would have been reasonably thought of, but there was pure bronchial breathing above, and that, in connection with the pleuritic effusion, seemed to dismiss the idea of tumor. The patient had spit blood, and had strumous scars on the neck. These, in conjunction with the pulmonary consolidation, had suggested fibroid phthisis at the start. In the *post-mortem* there was found left sero-fibrinous pleurisy. The right lung was congested, but there was no tubercle or new growth. The left

lung was diminished in size and compressed by surrounding pleuritic effusion. On section the upper lobe was collapsed. The central portion was infiltrated with nodules of soft, white, new growth, evidently of a sarcomatous nature. The lower part of the lung was in a state of acute suppurative pneumonia.

ASTHMA.—An attack of asthma may be cut short at the onset by painting the nasal fossæ as far as possible with a solution of cocaine (1 to 20) or spraying the nose with this solution for five minutes.—*Southern Clinic*.

There is no question as to the efficacy of cocaine in those cases of asthma depending upon nasal irritation, polypi, stenoses, etc., but our experience has not taught us to put much confidence in this treatment in asthma, resulting from chronic bronchitis and other causes not depending upon nasal lesions.—*Kansas Medical Journal*.

We bow to you, *Kansas Medical Journal*, it is hardly probable to get much relief from the use of cocaine in cardiac asthma. Universal specifics won't do to treat a symptom due to such diverse causes.—*American Practitioner and News*.

DR. BLANCHARD, of Geneva, recently reported results in seventeen cases of latent tuberculosis treated with creosote. Dr. Blanchard comes to the following conclusions :

1. Pulmonary tuberculosis is curable.
 2. Creosote is a valuable remedy, especially in incipient cases.
 3. It is important that the diagnosis should be made early to give this treatment a fair chance.
 4. The remedy is also valuable in cases of bronchial catarrh, following influenza, which are regarded by Dr. Blanchard as cases of incipient phthisis.
- St. Louis Medical Era*.

DIFFERENCE BETWEEN A QUACK AND A REGULAR PHYSICIAN.—Armstrong wrote, fifty years ago: "But all that I have observed convinces me that the diagnosis of diseases mainly depends on minute circumstances, that excellence is to be found in nothing but minutiae, and that those who despise minutiae are mostly ignorant of essentials, which are made up of minutiae. One of the fundamental differences between the quack and the regular practitioner is and should be that the one gives his universal panacea without reference to what is the matter, and the other attempts to make a diagnosis and apply the proper remedies."

PNEUMOCOCCUS OF FRAENKEL.—(London Lancet, March 3, 1894.) According to the statements made at a meeting February 27, 1894, of the Royal Medical and Chirurgical Society of London, we are to understand that the pneumococcus is a wily and energetic foe. He does not limit his operations to the production of pneumonia, but is also associated in the production of

empyema, meningitis, and endocarditis. But unfortunately it was also stated that "it was remarkable that the pneumococcus often did not produce the symptoms if it was not developing in the pleura or lung."

CAUSES OF CHEST PAINS. — (H. M. Brown, M. D., Cincinnati Medical Journal.) (1) Intercostal neuralgia; (2) rheumatism of the fascia; (3) neuritis; (4) acute pleurisy; (5) dry pleurisy; (6) neuroma; (7) aneurism; (8) cancer; (9) ataxia; (10) spinal disease; (11) bronchitis; (12) myalgia; (13) mitral disease, rarely painful; (14) aortic disease, generally painful; (15) dyspepsia; (16) diabetes mellitus; (17) herpes zoster; (18) angina pectoris; (19) a pseudo-angina; (20) phthisis; (21) syphilis; (22) gout.

DR. J. GERARD, in *La Médecine Moderne*, reports some very good results which he obtained by the use of inhalations of chloroform in arresting the extension of coryza to the bronchial tubes. In epidemics of coryza and influenza, even in cases where the catarrhal condition was severe, the author has seen the disease aborted. — *New York Medical Journal*.

Obstetrics and Gynecology.

In Charge of H. M. Goodman, M. D.

THE UNION OF GYNECOLOGY AND OBSTETRICS. — (American Journal of Obstetrics, June, 1893.) Under the above title F. Winckel, of Munich, replying to a letter of Prof. Parvin, of Philadelphia, makes some apt remarks concerning the tendency on the part of American and English surgeons to monopolize that department of medical science known as gynecology. "Some would define gynecologist as one occupied with abdominal sections upon the human female, a laparotomist, or, according to recent neology, a celiotomist, a term which has a false whisper of hybridity and of heaven, and is a dulcet delight like 'that sweet word mesopotamia.' Some advertise themselves, or are advertised, as gynecologists and abdominal surgeons, making the whole unbounded continent of pelvis and abdomen, male or female, their own." In Professor Parvin's remarks prelude Professor Winckel's reply, he states that gynecology should be regarded as a synonym for obstetrics rather than for diseases of women, and that the gynecologist is primarily an obstetrician. Professor Winckel gives the following reasons why the obstetrician is the pure gynecologist:

1. Both departments have to do with the same organs of the human organism, and that these organs (unlike muscles and nerves, kidneys, spleen, pancreas and liver, separated from one another and having individual functions), in addition to having a common vascular and nervous supply,

are intimately related and supplement one another in physiologic function, so that under pathologic conditions a bond of sympathy at once exists.

2. An obstetrician not perfectly familiar with and thoroughly able to carry out celiotomy, hysterectomy, the Porro operation, myomectomy, etc., could not properly perform his duty. Should the obstetrician be not thus qualified he must call in the surgeon to act as accoucheur, so that if he be no gynecologist he should also be no obstetrician.

3. Nearly all of the diseases of the female sexual organs may result from puerperal conditions, and it is one of the most important duties of the obstetrician to prevent such consequences, or, in the event of their occurrence, to treat them in their incipency, during pregnancy, labor, and the puerperium.

4. The conditions encountered under the above circumstances are not only such as require surgical measures—one need but think of the large number of nutritive disturbances of the sexual tract in puerperal women; besides, it has long been well known that old retroflexions can never be better cured, that is, more rapidly and with greater certainty of permanence, than by the institution during the first days of the puerperium of systematic tonic and instrumental treatment. Is the obstetrician to say, "This is not my affair, I must call a surgeon?" or shall he undertake the treatment of those retroflexions that are remediable by the application of pessaries and turn over to the surgeon those chronic displacements dependent upon adhesions of the uterus to adjacent structures, because, mayhap, it should become necessary to perform a ventro-fixation of the uterus. The arrangement would, no doubt, be an entirely agreeable one to some surgeons, but the condition would be a most deplorable one. For both patient and physician it would not be long before obstetrics and gynecology would be still further divided, so that in the course of time there would be exclusive vulval doctors, vaginal doctors, uterine doctors, tubal doctors, and ovarian doctors.

5. If, as a result of peritonitis from perforation or septicemia, a puerpera be brought to the edge of the grave, should the obstetrician, waiting for the knife of the surgeon, permit the time most favorable for the successful performance of celiotomy to escape, and the life of the woman be thus sacrificed?

STATISTICS ON THE CURABILITY OF CELIOTOMY COMPARED WITH OTHER METHODS OF TREATMENT FOR THE RELIEF OF PELVIC DISEASE IN THE FEMALE.—After ten years of experience in minor gynecological work, and having witnessed and assisted many times in capital operations, the conclusion that the operation had been ill advised has been so frequently forced upon me that I have at last determined to attempt to gather some reliable statistics bearing upon the merits of the various modes of treatment at present in vogue for the relief of pelvic disease in the female. Although the patient recovers from the immediate effects of the operation, I do not think we are justified in rushing before a medical society and reporting such cases as "a

successful operation" two weeks, two months, or even one year after its performance. In reference to the operation of celiotomy for the relief of ovarian or other cysts, simple, inflamed, or suppurating, there can generally be but one opinion, and it is not in this aspect that I wish to consider it, but in regard to the removal of the ovaries and tubes in salpingitis, pyosalpinx, and various other inflammatory processes. Under this heading I would include salpingitis in its various forms, salpingitis with suppurating ovarian cysts, tubercular disease of the fallopian tubes, tubercular abscess in the abdominal walls, hematosalpinx, hematocele, hematoma of the broad ligament, cysts of the broad ligament, uterine fibroids, encysted effusions into the peritoneum. One great mistake has been made, I think, in persuading ourselves that the mortality of the operation is *nil*, and in consequence many inexperienced men have undertaken the operation under the false conception that abdominal section is as safe as the extraction of a tooth. Even at the hands of our best operators the mortality is large, perhaps far larger than we have any conception of, for men are not given to honestly reporting their failures. In speaking of this subject I am constantly reminded of the Louisiana lottery octopus. The man who draws his prize has his name heralded in every newspaper throughout the land as a successful man, but we never hear of the thousands of poor devils who risk their dollars and waste their sustenance in the vain hope of winning a fortune. So it is, though in less degree, in regard to the operation of celiotomy: it is advised as the only means of obtaining relief performed, and if the patient recovers it is a success, and no pains are spared to see that every one knows it, and the successful operator rises from the mists of obscurity and becomes at once a great man. Emboldened by success he becomes more radical in his views, renounces the curette, the uterine sound, and other well-known methods and instruments that have stood the test of time, without perhaps due familiarity with them, and stands before the world a full-fledged gynecologist, ready to serve womankind by unsexing them upon any and all occasions. As the months roll by his one case becomes by frequent repetition magnified into a dozen, or perhaps he may have had a dozen cases with eight or ten recoveries. Such a record is only too likely to cause him to boast of his successes until in his heated imagination he sees with but one eye, and that eye penetrates the abdominal walls and locates all ailments of womankind in organic changes of the tubes or ovaries. If the woman die after the operation, and perchance the operator be a rash youngster, desirous of emulating the success of his elders, he dies professionally, and sinks into that oblivion from which time may never again raise him, the opinion of the general public thus serving to place a check to some extent upon idle and useless mutilations. But if the operation be performed by a noted operator and the patient die, he reports the case as dead, not from the operation, but from some remote cause, and lays the flattering unction to his soul that she would have died anyway; and in making up his report of one hundred successful celiotomies, some of the unsuccessful cases

are forgotten, or death occurs from some other disease, and the world goes on recording wonderful successes in operating skill and daring.

What may be termed the laparotomy age is now about ten years old, and from an infant in swaddling clothes it has grown into a strapping youngster in less than a decade. Our medical journals have been full of reports upon successful operations, and Mr. So-and-so's improved technique and instruments, etc., for lessening the dangers of the operation. Discussions have arisen before our medical societies over just how to perform the operation, the nature and character of the ligatures, sutures, etc. All of this has now led to what I may call a perfect technique and has thrown a considerable light upon the nature of the pathological conditions of the uterine adnexia and the peritoneum. The time is now ripe for forming a definite opinion as to the curability of this operation for the conditions named, and what I am now most desirous of seeing is a report of the present condition of the cases included in Mr. X's preliminary report of his first one hundred successful celiotomies. In our consideration of the mortality of this operation we must not lose sight of the mortality of the disease. That the operation has a legitimate place in surgery no one will attempt to deny, but it has been and is being abused. Like all other operations it has its limitations, and these are to be governed by the assurance we can give our patients of performing a cure. With a view of forming definite opinions upon the condition of these patients several years after operation, to ascertain how many still continue to suffer pain, how many have sinuses, how many have ventral hernia, how many require a second operation, and what percent may really be said to be cured, I have prepared a series of papers, including operation by celiotomy, treatment by aspiration, by uterine drainage, etc., and would consider it a favor if any one who is acquainted with the after-history of all cases that may have occurred in their practice would send me short notes relating to the subject.

DISINFECTION.—Lavraud (*Journal des Sciences Médicales de Lille ; Revue Général de l'Antiseptie, Cannée, tome i.*) states that theoretically we are now thoroughly equipped for a victorious struggle against nearly all infectious and epidemic diseases ; but, as a matter of fact, there is no antiseptic which in its practical application to the needs of daily life will give the results which are obtained in the experimenter's laboratory. The recognized disinfectants of the day are heat and certain chemical substances, also the desiccating action of air and direct sunlight. Heat is applied by means of boiling water, to which has been added carbonate of soda, by steam under pressure.

The most reliable chemical agents are solutions of carbolic acid, five per cent ; chloride of mercury, 0.1 per cent ; quick-lime, chloride of lime, and lysol.

Abstracts and Selections.

ERGOT IN THE TREATMENT OF PERIODICAL NEURALGIAS.—Dr. William H. Thomson read a paper on this subject before the January meeting of the New York Neurological Society, in which he gave the histories of a number of cases of severe periodical neuralgias in which the symptoms had been promptly relieved by the use of ergot in large doses. In all of these cases the disease had been of long standing, and the usual remedies had been employed without avail. Dr. Thomson said his method of administering the ergot in migraine was as follows:

The fluid extract of the drug was employed, combined with an equal quantity of elixir of cinchona, to obviate its tendency to cause nausea. Two drams of this mixture were to be taken in water as soon as the premonitory symptoms of the headache were noticed, and the patient was advised to lie down and keep very quiet. If after an hour the headache continued, a second similar dose was taken, and then a third in another hour, if necessary. As nausea was such a general accompaniment of this affection, it was provided that if either of the doses be vomited it should then be taken in an enema of two ounces of water.

This medication, the speaker said, rarely failed to arrest the attacks, even in long-standing cases, and with a preventive course of intestinal antiseptics in the intervals the relief from the malady had often proved permanent. The following was the history of one of the cases reported by Dr. Thomson:

The patient was a young man who suffered from headaches beginning at the occiput and extending to the temples. They generally came on about 11 A. M. daily, and gradually grew worse until they reached their acme about four o'clock in the afternoon, after which they subsided, without, however, entirely disappearing. His physician had failed to check their increasing severity, although on one occasion he had administered thirty-grain doses of chloral with thirty grains of potassium bromide every two hours until two doses had been taken, with little more effect than a slight drowsiness being produced.

The next day, the patient becoming maniacal from the pain, sixty-five grains of chloral, sixty of bromide, and thirty of antipyrine had been given within two hours. This had caused a profuse sweating and moderate sleep. The third day a consultant had been called, who recommended that quinine and Warburg's tincture (which had been tried at the beginning of the treatment) should be resumed in large doses. Accordingly sixty grains of quinine and two ounces of Warburg's tincture had been given in twenty-four hours, with even worse afternoon paroxysms of pain than before. The

next day the bromide, antipyrine, and chloral had been resumed, but no great relief had been obtained.

At this time he had been seen by Dr. Thomson, who recommended dram doses of the fluid extract of ergot every hour until three doses were taken, the first two doses being combined with ten grains of quinine, and if his stomach rejected either of the doses the medicine was to be given *per rectum*. Soon after taking the first dose the patient experienced a good deal of relief; the second dose had been vomited, whereupon it had been given *per rectum*, and this had soon been followed by a complete subsidence of the pain, with profuse perspiration. This medication was repeated for three successive days with final cure of the headaches. The second ten grains of quinine produced decided symptoms of cinchonism.

Dr. Thomson, in reply to a question, said our present knowledge was not definite enough to form any idea as to how ergot acted in these cases. He simply gave it as an empirical remedy. Furthermore, his paper had referred entirely to neuralgias that were definitely periodical.—*New York Medical Journal*.

THE TRANSMISSION OF TYPHOID FEVER BY AIR.—Investigations on this subject have been made by Dr. Licard, of Beziers. His plan of experimenting was to have patients suffering from this disease breathe through tubes into water that had first been sterilized. Specimens of water thus treated were frequently found to yield the bacilli under cultivation. The bacilli were not always found, but this is not a matter of surprise when it is considered that the best bacteriologists frequently fail to find them under conditions strongly suggestive of their presence. Dr. Licard's results were, however, sufficiently uniform to warrant an inference that the expired breath of typhoid patients, like that from those having typhus, may serve as a channel for fever infection. The vast majority of typhoid infections have their origin in a contaminated water supply, but every observer has been puzzled more or less by cases of the disease which have arisen apart from any known inculcation of the drinking-water. These cases of obscure origin may originate from two causes whose bacillar contact is atmospheric, not simply by means of the breath of the sick, but also by emanations from sewers, cesspools, and other receptacles of typhoid dejections.—*Texas Health Journal*.

A SIGN OF BREECH PRESENTATION.—When, in a woman who has passed the sixth month of pregnancy, a sharp pain is produced by placing the hand on the fundus uteri, it may be almost affirmed that there is a breech presentation. The fact is very frequent, although not constant, being present in about seventy per cent of cases. The pain is sometimes spontaneous. How is it to be explained? According to Pinard, it is due to the irregular distension produced by the rounded mass of the head. If version is performed the pain disappears.—*La Clinique Internal*.

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"*NEC TENUI PENNĀ.*"

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A GREAT MAN GONE.

Charles Edouard Brown-Séquard, the eminent savant, physician, and author, died in Paris on the second instant. For the gift of this great man to science the world is equally indebted to America and to France. His father was Captain Edward Brown, of Philadelphia, and his mother a French lady of Mauritius, whose name was Séquard. The son, who was born on the Island in 1818, added his mother's maiden name to his father's surname when he came to man's estate, and made the combination famous as the years rolled on. This blending of names proved most appropriate, for Brown-Séquard, in body and in mind, was an ideal combination of the Frenchman and the American, and there is also a beautiful fitness in the fact that he actually divided his time about equally between the two lands of his extraction.

In 1838 he went to Paris and took up the study of medicine, winning the degree of M. D. in 1846. Soon after this he came to New York, where he taught physiology in one of the schools with brilliant results. Indeed he soon became one of the leading physiologists of the world, distinguishing himself especially by discoveries made in the physiology of the nervous system. A natural outgrowth of these investigations was a thorough mastery of the subject of diseases of the nervous system, and Brown-Séquard practiced this specialty with great success for five years in New York, during which time he edited, with

Dr. E. C. Seguin, the Archives of Scientific and Practical Medicine. At this time (1873-78) he also published his celebrated "Lectures on the Diagnosis and Treatment of the Principal forms of Paralysis of the Lower Extremities."

In 1858 he lectured before the Royal College of Surgeons in London, and in the same year founded in Paris the *Journal de la Physiologie de l'Homme et des Animaux*. In 1864 he was made Professor of the Physiology of the Nervous System in Harvard. In 1869 he was called to the Chair of Experimental and Comparative Physiology at the Academy of Sciences in Paris, and in the same year he established the "*Archives de la Physiologie Normale et Pathologique*."

He was Fellow of the Royal Society, England, President of the *Société de Biologie*, of Paris, and a worthy wearer of many decorations and many honors bestowed upon him by many scientific bodies and institutions.

Some five or six years ago the aged physiologist, feeling the weight of years upon him, submitted himself to the *experimentum crucis* in testing the therapeutic value of certain animal juices and extracts with the hope of prolonging his life and lessening somewhat the burden of senility. His investigations, which were purely scientific and original, were given to the world in a modest paper which claimed nothing more for the extract than a sense on the part of the investigator of agreeable invigoration. At this the foolish fad hunters took fire, and heralded the extract as a cure for lesional diseases which the author never dreamed of benefiting, while a philistine secular press christened it the "Elixir of Life," and poured forth upon the aged savant a fusilade of vulgar ribaldry which, with shame be it named, it flaunts in indecorous headlines over the notices of his death. But "Truth crushed to earth will rise again," and while the therapeutic value of testiculine is small, there can be no question of its utility within the limits claimed by Brown-Séquard; and it must have been with a sweet sense of triumph that, through the dirt thrown upon him and the dust raised about him by his would-be funny detractors, the venerable savant saw that he had given to medicine a new department in therapy, which in one item at least has proved a cure for one of the most distressing ailments that afflict humanity.

The shafts of scorn have therefore become transformed into a crown of glory, and the gray hairs go down to the grave with the light of new honors upon them.

The year, indeed the last few months, has witnessed the deaths of three worthies in medical science, with whom a fourth can not be named. Charcot and Billroth have passed into the immortal, and to-day, standing by the open grave of Brown-Séquard, we can feel as Matthew Arnold felt when at Wordsworth's tomb he said:

Goethe in Weimar sleeps, and Greece,
Long since, saw Byron's struggles cease.
But one such death remained to come.

The last of the great men, who under the physiological impulse of the first part of the century pioneered their way into the undiscovered distances of medicine, is dead.

OUR PICTURES.

The American Practitioner and News is publishing a series of pictures of representative men (living and dead) in medicine. The initial portrait was that of Dr. Walter Brashear, of Bardstown. In the last issue the picture of Dr. J. A. Ouchterlony, the distinguished Professor of the Principles and Practice of Medicine in the University of Louisville, appeared.

To-day we take pleasure in presenting the genial features of Dr. Steele Bailey, of Standford, permanent Secretary of the Kentucky State Medical Society. Dr. Bailey is too well known to our readers to require any introduction at our hands. The success of perhaps the most successful State Society of the Union depends upon his able administration of its affairs.

Special Notices.

SALOPHEN AS AN ANALGESIC AND ANTI-RHEUMATIC.—It has been long recognized that while salicylic acid and its salts are among our most valuable remedies in rheumatic affections they are possessed of certain objectionable features which contraindicate their use in many cases. Patients with sensitive stomachs are frequently unable to take them because of their tendency to produce nausea and vomiting, while in the feeble and anemic, especially those with weak hearts, they are apt to produce dangerous symptoms. Violent headache, buzzing in the ears, dimness of vision, and vertigo are also commonly observed during the administration of the salicylates. When the enthusiasm attending their introduction had therefore subsided, and their disadvantages were recognized, efforts were made to find a substitute which, while equally efficient, should be devoid of unpleasant and serious effects. During the past two years a drug named salophen has been brought to the notice of the profession which is regarded by those who have investigated its properties as a safe, reliable, and effective anti-rheumatic and analgesic.

An exhaustive monograph on salophen has recently been published by Dr. Miller-Darier, in which, after a careful review of the investigations of other observers, and an account of his own experience, he presents the following conclusions: 1. Salophen promptly relieves the symptoms of acute articular rheumatism, especially the pains. 2. It possesses all the advantages of the salicylates without their disadvantages. 3. As it decomposes only in alkaline fluids, it does not disturb the gastric functions. 4. It is not toxic except in extreme, non-medicinal doses. 5. It is a good analgesic in nervous affections.

From the testimony of American and European clinicians it would therefore seem that salophen is a most valuable acquisition to the materia medica.

DR. A. B. POPE, Lecturer on Diseases of the Heart and Lungs at the New York Polyclinic, has used "Maltine with Cod-Liver Oil" as a vehicle for creosote extensively, and found it to be the most satisfactory way of giving creosote of which he knows. The formula was originated at his instance at the Demilt Dispensary, and first used by him there. Dr. Pope says, "In cases of tuberculosis it is often desirable that the patient have cod-liver oil, creosote, and a digestive agent like Maltine, and this combination fills the bill, giving excellent results, and at the same time rendering it unnecessary to have three prescriptions on hand at once." (*The Dietetic and Hygienic Gazette*.) The formula referred to is as follows:

Maltine with cod-liver oil,	fl. oz. xvi ;
Beechwood creosote,	fl. drs. ii ;
Oil of lemon,	minims, xii ;
Oil of bitter almonds,	minims, viii.

M. Triturate, and add creosote gradually. S.: Tablespoonful at each meal. It may be given in water, beer, wine, or milk.

HERMAN D. MARCUS, M. D., late resident physician at the Philadelphia Hospital (Blockley), reports a series of two hundred and fifty cases of pulmonary tuberculosis. Of this number one hundred and sixty-eight seriously objected to cod-liver oil for the usual reasons. Seventy-three cases were placed on terraline, a purified petroleum made by the Terraline Company, of Washington, D. C. Fifty-two of these cases had incipient phthisis, all of which gained rapidly in flesh. Cough gradually disappeared, and there was the most marked improvement in every way. Dr. Marcus classes these cases as "cured or greatly improved." Twelve of the cases were further progressed in the disease, and of these nine became so much better that they regained their former weight and are now only slightly troubled with coughs. The rest were too far advanced to be benefited by medication.



DR. T. B. GREENLEY.

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"*NEC TENUI PENNÂ.*"

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—*RUSKIN.*

Original Articles.

THE EVOLUTION AND DESCENT OF MAN.*

BY T. B. GREENLEY, M. D.

The theory of evolution and descent of man from the inferior animals, first plausibly elaborated by Charles Darwin, is now regarded by many scientists as being thoroughly established as a fact based upon scientific demonstration. Unfortunately a great many men who stand as scientific inquirers are often too apt to embrace new theories and place them on the rôle of scientific facts without due and proper investigation. In this particular we have illustrations within the last decade of several instances. We might mention the Burgeon method of treating consumption. Many contended the gas was absorbed by the bowels and conveyed to the lungs, where it acted as a germicide. As a demonstration of the fact it was claimed that it was exhaled from the lungs and made palpable to the olfactories.

Then we had as a remedial agent, as a cure for the same disease, the cabinet vacuum and compressed-air treatment, and finally came the world's wonder, in the way of scientific treatment of this disease, the magical Koch's lymph. Then, a while before this last, we had the rejuvenating liquid of Brown-Séquard. We all recollect with what avidity many medical men who are regarded as scientific embraced these different theories of treating disease; especially was this the case with the two latter methods. We might ask the reason why this was

*Read before the Hardin County Medical Society, April, 1893.

so. The answer is very easy. The theories were not properly investigated, and too much reliance was placed on the high standing of the authors of the theories. The world-wide excitement produced by the announcement of the discovery by Koch of his tuberculin was the result of the want of proper investigation. Had a moment's thought been given the matter no such excitement would have ensued. I think, as yet, it has not been demonstrated that a prophylactic against a disease will act as a remedy for the same. It is claimed that an attenuated culture of the tubercular bacilli, on the Pasteur plan, will prevent the development of tuberculosis. And, as Koch prepared his lymph from a culture of the bacilli and glycerine, it could not act as a remedial agent for the disease, as it is regarded as being the cause. We have illustrations of this principle in Jenner's and Pasteur's prophylaxes against variola and hydrophobia.

It is hardly worth while at this late date to speak of the absurdity of the vulgar remedies of Burgeon and Brown-Séquard. I fully exemplified their unreasonable characters, together with Koch's lymph, in three several papers before this Society, during their prominence as remedial agents.

We will now return to the consideration of the subject we propose to discuss. We remarked in the outset that we believe that a great many men had embraced the evolution and descent theory without due investigation of the subject, simply taking for granted its truthfulness from the plausible presentation of the theory by its eminent authors, as in the cases above alluded to.

In carefully reading Darwin, Haeckel, and others we are frequently reminded of plausible objections that might be urged in contravention to the truthfulness of the theory. Some of these objections I wish to present in as cursory a manner as possible.

First, as to the origin of life. Darwin, being a member of the English Church, claimed to be a Christian, and hence acknowledged the existence of a Deity. He believed that God created the principles of living matter in the forms of the lowest beings. He is not certain whether it consisted of a single form or more, but it belonged to the protozoa, or single-celled animals. From this structureless, simple, and almost inanimate form, in the author's opinion, all the living and extinct species, both vegetable and animal, that now or ever did exist, had their origin. His explanation of the mode as to how such great changes by evolution resulted in the various specific forms consists in the action of

four causes: (1) Environment or surroundings; (2) natural selection; (3) heredity, and (4) sexual selection. Environment of the animal produced certain variations in its form and structure as a matter of accommodation, which natural selection preserved for its benefit in the next offspring. Heredity not only preserved what advantage it derived from its ancestor, but also what it received by environment, which was transmitted to its descendant. So it seems that natural selection worked conjointly with heredity for the benefit of the animal. Sexual selection seemed to have remained dormant till after many species were evolved. It did not seem to manifest itself until the grasshopper and some other insects endeavored to attract the attention of the opposite sex by stridulation.

Darwin and his confrères had very hard work to get the evolutionary machinery in operation among the lower forms of life. In the first place it would seem somewhat miraculous to suppose a protozoon, or ameba, a single-celled atom of protoplasm of microscopic size, adhering to the rocks at the bottom of the sea, to differentiate as to its environment, whether or not there might be any advantage to be derived by any change of structure. And as they are non-sexual in character, and propagated themselves by subdivision, there could be no influence exerted by heredity, and of course sexual selection could not be brought into play. In this instance natural selection was also left with nothing to do. But of course when all these aids to evolution were compelled to lie dormant the great laws of nature were brought to bear to help out the difficulty. Evolutionists have great faith in and place great reliance on the wonderful powers of nature in assisting them in the evolution problem.

Darwin, however, does not make any attempt to explain how evolution got a start among the lower forms of life; nor does any other author on the subject as far as I can learn. He would not have had such a difficult matter if some higher form of life had been created for the commencement of his theory, say some of the vertebrates. Haeckel, a strong evolutionist, being an atheist, denies that the first forms of life were created, but originated by spontaneous generation. He wished to dispense of all miraculous idea in creation by a supreme being, and started life by spontaneous action. Through the agency of chemical reaction, or calorific force, he instilled life into dead inorganic matter, to wit, carbon, and produced the moneron. All this was accomplished through the agency of the laws of nature, seeing the necessity of life in the world. As this

marvelous performance was enacted during the Azoic or Laurentian period, when the earth was under water, it is presumed there was some difficulty in the action of calorific or a chemical force. Haeckel does not undertake to explain how environment, natural selection, etc., reacted on these lower forms of life by which they generated higher species and genera. But he, like all evolutionists, relied greatly on the blind laws of nature to accomplish any thing they could not account for.

According to the authors of genealogy our ancestors, after assuming the dignity of the vertebrates in the form of fish, when they could disport themselves independently in the capacious sea, were compelled to become amphibians and drag themselves through the filthy mud and slime of the shore in order to procure their food, and subsequently to still lower their dignity by the degradation of crawling on the ground in the shape of the reptile.

It was a wise provision of nature at that unhappy period of their existence that the sorrowful idea was not revealed to them that their descendants at some time far distant in the future should add further insult and degradation by *bruising* with their heels the heads of their great ancestors.

It is not positively stated whether or not in our transmigration, during our aquatic life, we came through the shark or the whale, but perhaps the former, as the work of evolution would have been too great to have taken us up to the whale and then graded us back to a small amphibian. But as we have evolved backward and forward so often from little things to big things, it is a hard matter to keep pace with the line of our descent. It may be that we did come through the whale, as he has rudimentary legs, and were passed on through the crocodile to the land where we were evolved down to the turtle. It would seem, however, upon a fair view of the case, that as the whale is a warm-blooded animal, breathes through lungs, and a mammal with rudimentary legs, that it would have been less work for evolution if we had been gradually modified down to the quadrupeds, just a little above the marsupials, and thereby saved the great labor of going down from these animals to the lowest type of the mammalia, to wit, the small rodent, and then gradually, by variations and natural selection, to where we should have arrived by descending from the whale.

The question now arises, did we ascend through the rodents, or gnawing animals, from the turtle to the marsupials? But this could not be so, as the rodents are true mammals, while the former are not. It is the

general opinion of evolutionists that we came through the bat, if no other bird species. Not long since, on looking at a fine large ostrich, which stood up so tall and strong with his 180 pounds weight, I thought it would have been more creditable if we had passed through him on our way up; and the wings could have been evolved back more easily than the bat's, as they are only rudimentary. But had this been so, we should have had to suffer reduction in size before we reached the opossum. Having reached the mammalia proper, we now have easier times in the upward climb.

The pathway, is comparatively easy through the dog, lemur, and simiadæ, or monkeys, with the exception of some enormous tails that we had to contend with. We have now arrived pretty high up on the ladder of evolution, and are now coming in contact with our near kin, the anthropoid apes. Now, irony aside, we wish to make some inquiry as to the physical differences, as well as mental capacities, between the brutes which are claimed to be our immediate ancestors and ourselves. Darwin claims that the gorilla is our immediate ancestor, but Haeckel is well-mannered enough to grant that, perhaps, a man-ape existed between the gorilla and man proper. If we examine the skeleton of a gorilla we find many differences between it and that of man. A profile view of the skull teaches us at once that it is the head of a brute. Compared to that of the lowest type of man it is much more prognathous (jaw projecting, or forward jaw), his face approaching a horizontal line with that of the forehead of a dog. His lower jaws are much larger, and his canine teeth are very long and powerful, projecting like tusks above and below, beyond the roots of their fellows, room (diastema) being left for the projection between them and the adjoining teeth. The lower teeth are longer than the upper. The supra-orbital processes are enormous in size, and in the living animal give the appearance of a hood. The concavity or depression in their rear is very great, and leaves a very contracted space within the skull for the development of the anterior lobes of the cerebrum.

It is admitted by Huxley that the capacity of the skull of the lowest type of man is double that of the highest gorilla. According to Morton, the smallest cranium observed in any race of man measured sixty-three cubic inches, while the most capacious gorilla's skull measured thirty-four and one half cubic inches. Huxley, although a firm believer in the descent of man theory, admits a child's brain of four years old is twice as large as that of an adult gorilla.

The spinous processes of the cervical vertebra are very long, affording space for the attachment of a large mass of muscular tissue, giving the animal the appearance of being destitute of a neck. The vertebral column is much longer than that of man, being about double in size, as well as much longer, equaling about twenty-five per cent. There are thirteen dorsal and four lumbar vertebræ, with thirteen ribs on each side. The arms are also much longer, and when in erect position the hands reach below the knees. The feet and hands are much longer and larger than man's. The great toe comes out from the foot at the base of the metatarsal bone of the second toe, but stands out from the foot something like the thumb. In height the gorilla averages nearly that of man. When this animal walks in the erect position it has a shuffling gait. It moves in a stooping posture with its hands on the ground. It assists itself in progression by thrusting its body forward while supporting its weight on the hands, giving its body a half swinging motion between them. His physical power is much greater than that of man, and he attacks his enemies with savage ferocity.

In appearance this animal is the most brutal and savage of all animals, and really has but little resemblance to a man. Although he looks more like a black bear than any animal I know of, yet the bear has the advantage in being less savage in appearance.

It is claimed by evolutionists that anatomically there is no difference in the structure of the brain of the gorilla and that of man except in size. They also claim that the vocal organs are very similar.

We have now, in as succinct a manner as possible, examined the physical differences between man and the gorilla, the highest species of the anthropoid apes, and the one claimed to be the progenitor of man. Now, is it not a wonder, that with all the great differences possessed by this animal compared to man, that any evolutionist could for a moment conclude, when their laws of descent are tested, that man could have been his direct descendant or offspring?

As before stated, it is claimed that species are generated one by another by gradual and very small variations, and that if any sudden leap or variation takes place it would be in violation of this law; therefore, if we really descended from the gorilla, under the application of evolution laws, it must have required many thousands of years to have wrought the necessary change, leaving a gap requiring the production of many differentiated creatures to fill it up before man could have appeared.

In the great evolution theory it is a wonder some of the authors have not been astonished, while evolving a higher order of being out of a lower, that the mental manifestations did not keep pace with the physical development. That in some insect species the intelligent manifestations were much greater than in even some of the mammals; for instance, the ant, one of the smallest insects. What wonderful intelligence in their industrial avocations; what instinct they manifest in providing for the welfare of their young and in laying up supplies for themselves! We also see the same display of intelligence in many other, though larger, insects and animals. For instance, the bee in the mathematical construction of its home, and the little oriole in the building of its nest.

Do we witness any such manifestation of intelligence on the part of the high apes in the construction of their houses or beds? Although they possess, you might say, quadrumanous and ambidextrous organs with great muscular strength, yet we see nothing in the way of ingenuity that they perform, notwithstanding they have a brain similar to that of man. They do not even construct houses to shelter or protect their young. If they have any beds they are composed of a few limbs and twigs of trees rudely placed together. There are many animals away below them in the scale of being which build for themselves comfortable places of abode, where they take care of their young. We also see genius displayed in the actions of the crow and parrot. Has any one given any account of the mental action of any of the higher apes equal to that displayed by the parrot? In fact there are few of the mammalia but are more intelligent than the so-called anthropoid apes.

Darwin speaks of the great difference in this particular between these animals and the lowest type of man. He does not pretend to give any rational cause of this great difference, but thinks there exists a great deal of inherent intelligence in these creatures but yet in a dormant state.

It would seem strange that natural selection has done so much to develop barbaric man and nothing for the ape. According to the time claimed necessary to evolve a man out of an ape one would have supposed, in these millions of generations, the ape, through natural selection, would have had some favorable influence exerted on him in the way of civilization, when it has done so much for man in a much shorter time. The most barbarous tribes of men can be civilized if properly

managed, but so far our immediate ancestors, the gorillas, are utterly untamable. A young or old gorilla can live but a short time in a state of confinement with the kindest treatment.

Darwin regards his inability to talk as one great hindrance to his civilization. Then the question may be asked, why don't he talk, as he possesses, anatomically, similar vocal and mental organs to those of man? How did man learn to talk? He had no instructor, nor did he receive the gift of speech by heredity or natural selection! Time will not permit me to discuss the merits of these questions, but only to ask them as being pertinent to the subject under consideration.

The gorilla stands at the head of the anthropoid apes, as it respects size, strength, and ferocity, but in our estimation, if variation and natural selection had in view the evolution of a man from the apes, their work was carried too far when they got to the gorilla, and therefore must believe that the authors of the theory of descent made a mistake when they selected that animal to represent man's immediate ancestor. If they had chosen the chimpanzee, the ape just below him in size and less ferocious, they would have come nearer representing man in several particulars. The head of this animal is much nearer in form to that of man than is the gorilla's. The supra-orbital arches are not near so prominent, and the vault of the skull not near so flat. His whole skeleton, as to size, approaches more nearly to that of man than does the skeleton of the gorilla. He is much more pleasant to look at and much more easily tamed. This description, as compared to man, is also applicable to the gibbon of the lower anthropoids. This animal moves in the upright position with greater resemblance to the movements of man than any of the anthropoid apes. When it walks on all fours it spreads its palms flat on the ground, differing in this respect from that of any of its higher kinfolds. This animal is also gentle, has a much more pleasant aspect of face, and is much more easily domesticated than any of the genus to which it belongs.

As before remarked, under these considerations the question might be asked, did not evolution, under the guidance of natural selection, carry the thing too far when it developed the terrible brute, the gorilla, for the progenitor of man? Or have the great authors of the descent theory made a mistake in selecting that animal in place of one lower in the scale, as they term it, to represent the great family of man? But they could not have easily done this, at least with propriety, because the ugly brute would have been left on their hands without a place in

nature. It would have been a happy thing if the evolution and descent theory had been gotten up before the discovery of the gorilla, which only took place about half a century ago; whereas Darwin published his work about two decades afterward, 1871. This theory had, however, been partially outlined previously by Lamarck, Wallace, and others, but Darwin, as before observed, was the first to systemize and give it character by his great genius as an author. But it is presumed, however, if he had been more familiar with the characteristics, both physically and mentally, of the gorilla, and had ever seen one alive, he would not have claimed him as his great ancestor, and would have selected the more amiable and pleasant-faced chimpanzee or gibbon instead.

From these remarks it may be claimed that it is a misfortune that the gorilla was ever evolved, or that he was ever discovered, as in either instance we could have looked backward without being so terribly shocked at our great progenitor.

Now we will examine some of the differences between man in his primary condition, and the gorilla, taking it for granted that we are his offspring. The gorilla, as is well known, is a powerful, savage brute, always ready to defend himself against his enemies. He is possessed with natural means of defense as well as attack, and his strength is equal to his courage. He inhabited, no doubt, at the time man made his appearance on the earth, a wilderness or forest, as he does now, where many other animals of prey existed. We must now take for granted the theory of Darwin to be true, that one pair of gorillas were the prime ancestors of man, or if this idea is erroneous, and all gorillas became man's parents, there would be no gorillas on the earth now.

Therefore we must believe in the monistic origin of our race, or disbelieve the gorilla to be our progenitor. We must overlook the strange phenomena that evolution picked out one pair of gorillas for our special benefit, and that natural selection kept them in line until the baby *homo* was born. Now this is the point we have been aiming to get to. We want to ascertain as nearly as the circumstances will allow, how that newly-developed baby fared in that wilderness among so many wild animals that would have liked him for food. Of course, if he was a real, human baby, he was devoid of gorilla hair-covering, and as his parents had no beds nor clothing of any kind by which he could be protected, he must have suffered from the cold nights, to say nothing of mosquitoes and other insects. We can readily perceive how badly that baby needed a blanket. Now the question arises, how was that child

taken care of by its mother, or did she treat it as young gorillas are usually treated by the mother. We learn that the female gorilla carries her young in front by its clinging around the waist. In this manner she jumps from limb to limb through the trees. Now, we would ask, what would become of one of our babies if it was compelled to endure such exposure, and undertake to perform such gymnastic exercises as hanging to its mother while she practiced the circus art among the branches of the trees? We can readily answer, it would die either from croup or bronchitis from exposure, anemia produced by the loss of blood from insect bites, probably before gymnasia commenced; or, if by any chance it endured to try that performance, it would have been killed in the commencement of the exercise by falling to the ground. Of course we could not expect the mother to know that she had a human baby to care for, as she had always been used to gorilla children, but no doubt she was surprised to see a child without hair.

It is very easy, right here, to see what a hard, up-hill business both that mother and baby had to get along through the world until the child got big enough to take care of itself.

Now there is danger for the boy still ahead. His mother being used to seeing gorilla children weaned and allowed to shift for themselves at two years old, she may have thought this new baby could do as others at that age and turned him loose. The first thing in the way of danger that might have occurred, the little fellow glad of a little liberty may step aside out of his mother's sight, and being like the children of the species *homo* in general, possessed of great curiosity, may fall into a pit, or down a cliff, endeavoring perhaps to reach some red poisonous berries, and get killed; or come in contact with some animal, perhaps an uncle or aunt gorilla, and they, not knowing he was just evolved, destroy him. It may be said the dangers surrounding him in that wild forest were innumerable. A young gorilla of two years old is able to defend itself against a man unarmed, whereas our babies at that age are perfectly helpless.

Hartman and Ballou give accounts of capturing young gorillas about two years old, where they made great resistance. As a rule when taken captive, even at this very early age, they are hard to tame, and generally live but a short time.

Now, it is a well-known fact that a new-born human infant is the most dependent and helpless of all young animals. It needs and demands greater care and attention on the part of the mother than any of the

inferior animals. It only has instinct sufficient to nurse when the nipple of the mother is placed in its mouth; whereas the lower animals, by instinct, immediately search for and find the teats of their mother. These animals are able to walk immediately after birth, whereas the baby is generally a year old before he walks. He is not only physically the most helpless of all young animals, but mentally so. His brain at two years old is nearly twice as large as the gorilla's at maturity, but still mental faculties are just beginning to be developed. In speaking of the difference between the mental condition of the new-born child and that of the young of inferior animals, Dr. Hall, of New York, remarks: "While the human pair were denied the power of transferring to the child bodily their originally inspired and acquired knowledge, they were given in lieu of it the gift of speech, and the capacity and desire to teach the young, and in this way only to transmit their intelligence from one generation to another. While the lower animals have been deprived of this capacity or desire to teach their young, and in lieu have received the power of transmitting their own knowledge bodily with the physical and vital organism, the young are equally incapable of being instructed by the parents except to a very limited extent by observation and imitation, but depend wholly upon the supply of knowledge which is born with them, and which we have for the want of a better word called instinct." He also says that the child is born with an almost unlimited capacity of being taught. This statement very sensibly explains the difference between the helpless infant, both physical and mental, and that of the young animal.

Then, to revert to the helpless young *homo* we left in the wilds of Africa with its gorilla mother just letting him take charge of himself among all the dangers surrounding him, what chance for life, a living, or for education can we see before him? Then, in the event of an accident by which he should lose his life, or if his mother should fail to give birth to a sister for his mate, then the starting point for the species *homo* would have been destroyed, and evolution would have been compelled to try its hand again on another pair of apes. It is something almost unaccountable that natural selection, which required thousands of generations to evolve one species from another of a lower form of animals, should always finish up with a single pair for the new species to start on.

While this work was going on among the turtles and other animals which produced large broods of young at a time, one would suppose

that there would have been some difficulty on the part of natural selection to select from the gang the pair belonging to the new species leading up in the line of ascent toward man. This is one point I think Mr. Darwin failed to explain. It would seem that with this view of the matter the main object of evolution was to develop new species, and not so much to improve and care for the old, as Mr. Darwin asserts that it was necessary for the general good that the generation of the old should still go on; in all probability to serve as food for the new. But it would appear to the thinking mind wonderful how natural selection managed to develop only a single pair of animals for each species to commence with, and at the same time was enabled to preserve them intact so as to generate males and females in sexual proportions. When we reflect that a single pair, without a failure in tens of thousands of instances, should inaugurate the genesis of a new species, it strikes the mind as something miraculous. But our great scientific authors seem to be satisfied that these apparently almost impossible results were brought about by natural selection, guided by the great laws of nature.

We might cite some of the dangers the young pairs were in before they commenced to generate their progeny for a new species, as the baby *homo* was in his infancy, but owing to the magnitude of such a task and the want of time, we will only allude to a sample of a low form. For instance, when the turtle, on the eve of turning to a bird, had laid her eggs in the usual way, two of which were to hatch out young birds, suppose that just before this event was to occur some egg-sucking varmint had come along and devoured them. Such an accident would have been a great misfortune, as that might have been the last nest of eggs that mother was to lay, thereby stopping evolution and preventing the generation of the bird genus. This would have been a great disaster to the world, and could have only been remedied by natural selection trying its hand on another turtle.

Now, as before remarked, when we come to think of the ten thousand pairs of the various species of animals which were the progenitors of their respective species, all happily passing through the manifold dangers which surrounded them and their offspring, it is a wonderful contemplation, especially so when we are asked to believe that it all resulted under the guidance and direction of blind chance, or, as it is called, the laws of nature.

MALARIAL HEMATURIA.*

BY FRANK A. JONES, M. D.

In presenting this paper upon Malarial Hematuria to the Association I shall be as brief as possible, limiting myself chiefly to the pathology and treatment. Malarial hematuria, as its name implies, prevails throughout the whole southern country, especially in all localities abounding in lakes, swamps, stagnant water-courses, etc., all of which are conducive to vegetable decomposition and miasmatic fevers. It may be defined as a miasmatic, acute, general fever, characterized by an initial chill, with manifestations of inflammatory action in the whole kidney structure, especially in the mucous membrane. Inflammatory action in the kidney in malarial hematuria is as pathognomonic as ulceration of the Peyer patches in typhoid fever, or as the membranous deposit upon the tonsils and fauces in diphtheria. It attacks white people, especially the laboring class, those who are exposed to the hot rays of the sun and early morning dews during the summer months; those whose hygienic and sanitary surroundings are bad; where there is improper diet, etc. It is the exception and not the rule for it to attack the negro. The reason for this is clear, inasmuch that the negro is not so susceptible to malarial infection as the white man. His system is capable of taking on more malarial poison and throwing it off without deleterious effects. His physical nature seems to act as a safeguard against the disease, hence the few attacks we find with the negro.

Etiology. Among some of the predisposing causes may be mentioned bad hygienic and sanitary conditions, polluted water, improper diet, etc., but the chief cause is an overplus of malarial poison in the system, a chronic malaria in the form of chronic chills. The system has been infected with these malarial germs, the plasmodia of Laverans. Upon questioning your patient closely he will state that he has been having chills for some time; that he had allowed them to continue without seeking advice, claiming that he could check them with those patent chill tonics that are flooding our country, only adding insult to injury, and making his chances greater for an attack of hematuria. In all cases that I have seen I found both the liver and spleen engorged and enlarged, and in the majority of cases I have found jaundice prior to the initial attack. You will find your patient in an anemic condition generally.

* Read before the State Medical Association, at Jackson, Miss., April 4, 1894.

Pathology. The profession is not united upon the true pathology of malarial hematuria; in fact the pathology has never been conclusively demonstrated. A great deal of our pathology at present is based upon conjecture. By examining our standard text-books upon the subject of hematuria we find but little literature. The reason for this is obvious, insomuch that nearly all of our standard authors live in the North where malarial hematuria does not prevail, hence we have to derive our pathology from our own experience and knowledge of the disease. The point regarding pathology over which the profession is contending is, whether we have a true hemorrhage from the kidneys or not? Do we find the red blood corpuscle voided in the urine? Some deny the presence of the red blood corpuscle, and claim that we find only the hematin, the coloring matter of the blood in the urine; that we then have a condition known as hemoglobinuria, urine containing blood coloring matter. Not being well posted upon the subject of microscopical examination and chemical analysis, I am not prepared to state positively that we do have a true hemorrhage. But from what I have seen I am inclined to believe the hemorrhage is genuine. The character of the matter voided is enough to establish an opinion. It can be seen sometimes almost clotted in the chamber. There is no doubt but what we have extreme hyperemia of the kidney structure; the capillaries become so engorged with this poisoned blood that some of them may rupture. As a result of rupture a true hemorrhage is bound to follow. In grave attacks, where the patient survives, we may have a condition kindred to degeneration in the cells; the blood has been poisoned and impaired so long by these malarial germs, the plasmodia of Laverans, that the tissues of the kidney are imperfectly nourished. As a result of bad nutrition the oxydizing process is impaired; as a result of imperfect oxygenation some of the cells are apt to atrophy or degenerate. I do not believe that any one ever fully recovers from the effects of a violent attack of malarial hematuria. He is apt to have some organic lesion and is more prone to the second attack from the slightest overplus of malarial poison. I have examined the urine of some patients several months after recovery and found albumen in considerable traces. In one patient I found symptoms of nephritis. General anasarca is often the sequel of hematuria.

Treatment. "When Greek meets Greek then comes the tug of war." So it is when physician meets physician in the treatment of malarial hematuria. Prior to 1880 quinine was considered the sheet-anchor, the

sine qua non. But the question at present is, shall we continue to prescribe quinine or abandon its use? A more careful study of the physiological effects of quinine and a closer research into the pathology of malarial hematuria have proven to my mind that quinine is not indicated, but that it should be rejected as harmful. I am aware that there are several Delta physicians present who have taken issue with me along this line, and who still prescribe quinine in large doses. But I trust I can assign my reasons for being opposed to its use. I trust I can make myself plain, and only wish I could make my reasons so clear that they could not be refuted.

First, if we acknowledge one pathological fact, that we have hyperemia of the kidney structure in hematuria, if we accept the physiological effects of quinine upon the brain, the nervous centers, etc., if we regard quinine as being capable of producing hyperemia of the kidney given in doses as recommended by those who advocate its use, then it is conservative to abandon the remedy, for we can not accept both the pathology and physiological effects of quinine and continue to prescribe it with conservatism.

Again, if we recognize the effects of quinine upon the stomach and intestinal tract, if we regard quinine as being capable of producing nausea and gastric troubles generally, it matters not how it may be given, by the mouth, skin, or rectum, then we are not justified in prescribing the drug, for in malarial hematuria nausea is the predominating symptom; we have it to fight from the beginning to the end. The nausea is distressing and sometimes alarming. This nausea I believe is due to a reflex action through the solar plexus. If this be true, then it is certain that quinine is not indicated. I do not believe the quinine is perfectly absorbed when given by the mouth or rectum, hence it acts as an irritant.

Finally, if we regard the hemorrhage as being true, and this is the position I take, then quinine is not indicated, for it can not be shown by theory nor by clinical observation that quinine is indicated in hemorrhages generally. It is true that the hemorrhage is a result and not cause. But we have at our hands better remedies than quinine to arrest the cause; hence my reasons for being opposed to the use of quinine.

Those who advocate quinine give it upon the theory of combating the malarial germ, the plasmodium of Laverans. It is a demonstrated fact that quinine has a germicidal effect upon these bacilli, but are we justified in prescribing quinine to this end in the treatment of malarial

hematuria? Does it not depress the patient too much while it is destroying the germ? Does it not, in doses as recommended by those who advocate its use, act as an irritant to the already crippled kidney? Does quinine hasten a recovery? Bedside practice does not substantiate this fact. Can we accomplish a cure without the use of quinine? If this question can be answered in the affirmative, quinine should be rejected as a useless and harmful agent. I assert unequivocally that we can and have accomplished cures in grave attacks without quinine. The most conservative treatment, therefore, is to support the powers of the patient and eliminate this malarial poison from the system as speedily as possible. Arouse the organs of secretion and excretion, the liver and the kidneys. To accomplish the last mentioned indication we have at our disposal a time-honored remedy for many complaints, a remedy that is to the profession, especially to those of us who practice in the Delta, as the unit one is to mathematics, the basis, the sheet-anchor—truly the great mogul—calomel. It may be given for nearly every indication. Give it as a diuretic; give it as a cholagogue; give it as an antiseptic, and give it to make the bugs sick. It may be given *ad libitum*, say 5 to 10 grains every two or three hours until we get the full physiological effects, until we get free and copious actions from the liver. After we have gotten the effects from the calomel we may then give hyposulphite of sodium, an excellent remedy, introduced a few years since by a prominent physician in Arkansas. Twenty grains may be given every two or three hours, as the case demands. It acts well in disengorging the liver, and assists also in eliminating the urea which is present in considerable quantity. For the distressing nausea I have found nothing better than ice-water given freely. It is very acceptable to the patient, and I consider it the best of all antipyretics. If the stomach does not retain the water, repeat until the stomach becomes quiet. Ice poultices over the stomach are also beneficial in allaying the nausea. Hot lemonade acts well in arousing the sweat glands. The following formula, which I have been using of late, has been of much benefit to me:

- R Salol, gr. v;
 Dover's powder, gr. iij;
 Ergotol, gr. $\frac{1}{4}$.
 M. Ft. cap. Sig: Capsule every three hours, as the case indicates.

I use this formula where the hemorrhage is profuse. The salol acts as an antiseptic, the Dover's powder acts as a diaphoretic, and has a

tendency to quiet the nervous system. The ergotol controls the capillary action. When there are symptoms of collapse nothing is better than strychnine given hypodermically, one fortieth of a grain at proper intervals until the heart responds.

In conclusion, gentlemen, let me accentuate the fact that we should support the power of the patient and pursue the eliminative treatment.

INDIANOLA, MISS.

APPENDICITIS FROM A MEDICAL STANDPOINT.*

BY T. L. M'DERMOTT, M. D.

Owing to municipal exactions, with trying professional engagements during the past few days, I have not been able to prepare an elaborate essay on the subject I intended for your delectation. The unfinished report of Dr. Cartledge on the classification of appendicitis, which was interrupted at our last meeting, and the exhibition of specimens of some late operations, suggested some comments on the subject from a medical standpoint. It was therefore made the special order for this meeting, and as I feel no more important question is agitating the public expectancy both here and abroad than this, I invoke by this method the local sentiment favorable or otherwise as to its advisability and the character of cases deserving its application. In this, as in many other of those heroic operations that enkindle the enthusiasm of the original promoters, and startle the laity with the wonders of a science that thrills even the initiated, snatching from Death the imminent victim, and restoring to health the misanthropic cripple, it certainly seems inexpedient for the unsurgical brother to dampen the ardor or quench the fire that illumines such desolate pathways. But, on the other hand, as license runs wild with its sensuous victories, and culprits stalk where angels fear to tread, the history of all these grand successes is blotted frequently by unrestrained excesses, and the brilliant progress of the art destroyed by the unwary and the charlatan. And it does become at times the duty of the peaceful practitioner, standing apart, as it were, from the conflict between the knife and dissolution, to stay the hand grown riotous by acclamations. I do not expect to say any thing new on the subject, worn thread-bare possibly already, but simply desire to bring

* Read before the Louisville Medico-Chirurgical Society, March 9, 1894. For discussion see page 310.

to a more vivid experience its faults and triumphs, as demonstrated at home. The unalterable fact obtains, however, that a growing sentiment is fast gaining assertion among the medical members of the brotherhood who formerly, after diagnosis, relinquished without question their subjects to the knife. And contrawise among many of the adroit surgeons themselves there is already a disposition to eliminate many of their former operable cases.

Only a few years ago it became an open boast that laparotomy was in skillful hands a decidedly safe operation, so entirely harmless that it took rank among exploratory procedures, and it was growing as common to cut open the belly to elicit or confirm a diagnosis as to perform many of the minor operations; so much so, that in many instances life was sacrificed in the useless search for supposed disease in healthy organs. Nor do I wish to affirm right here that the quest was uncalled for, nor blight the fame achieved in some of those undertakings, but I do assume that in many instances the gravest concern must follow imprudent proceedings. The most serious obstacle to the fullest enlightenment naturally occurs from the want of frankness that interposes an almost insuperable barrier to a quick and decided solution of their utility in the ranks of the profession itself. And for many reasons, primarily, the experimentation which naturally opens so many new fields of conquest in surgical enterprise only prove their availability by continuous research, and they traverse many tortuous courses before the danger signal calls a halt. Secondly, I presume the implied acquiescence of doubtful results and the frequently unquestioned exhibition of specimens that do not fully bear out the alarming aspect the operator would have us affirm. I have no doubt that many lacerated appendices could trace their origin to the inevitable rudeness that attended their separation, and seem to give credence to urgency that calmer retrospection would deny. Of course the gravity of the responsibility, where fatal results attend these operations, militates strongly toward the defense of measures attended by such fateful consequences, and, whether the operation were wise or incompetent, a fellow-feeling for the author would bias an untoward criticism of his work.

As I intend this introduction to the discussion of the evening as a prelude to more statistical facts in its elaboration, I shall not enter fully into the etiology (which is somewhat obscure), nor to the technique (which belongs properly to the surgeon), nor the diagnosis (which is the property of both), nor the pathology (which is the rock that divides the

limpid stream of life, and the election of either channel after its passage, whether it be medical or surgical, decides in large degree the fate of the eventful voyage). Of course the supreme comprehension of them all merges into the general field of treatment when the battle-gage is given, and upon which depends the weal or woe of the subject. To those painstaking, erudite, thoughtful, and conscientious surgeons who bring to their task in these monumental trials the unimpeachable strength of purpose that wavers before no disaster, nor incriminates their courage be the results what they may, always remembering a human life is in the balance and at the mercy of their prowess, I wish to bow in humble gratitude and sublime *devoir*. If there is any lofty pinnacle to which ambition towers, and upon whose crest reposes its godliest hero, I believe the crown is theirs. In silent chamber and with bated breath the hovering circle waits his wondrous coming, and the canticle of joy or the deep-toned requiem his departure. Is it wonderful, then, that we should pause in contemplating the risks and adventures that environ every step or stop in this debatable territory? In this connection it is interesting to note that Talamon of Paris, Guttman of Berlin, and Treves of London affirm that from 85 to 90 per cent of patients suffering from appendicitis recover spontaneously without the use of the knife. Maurin and Hektoen through many hundred autopsies demonstrate the fact that from 16 to 30 per cent of peri-appendicular adhesions, some even where perforation itself had occurred, were found with no antecedent history betokening their existence. With this fact staring us in the face it becomes a mooted question whether the late-day recognition that appendicitis is the cause of 95 per cent of diseases invading this territory, in the opinion of many demanding operation for relief, has been a blessing or a curse to humanity.

As regards its etiology much commendation can be taken from the assurance that feces, calcium salts, etc., are the concretions met with, rarely seeds or foreign bodies, so that we can return with renewed enjoyment to the small fruits of early life, when we devoured baskets-full without consequences.

The diagnosis, coupled with its subsequent prognosis, is, I take it, the foundation-stone of the whole fabric; mysterious as it must be in an affection which may be acute or chronic, continuous or relapsing, with great variation of often indefinite symptoms comparable to typhoid, peritonitis, strangulation, typhlitis, and others. Pain, the most prominent of all, is frequently referable to other regions, though in males, I

have not seen it mentioned, is mostly located in the testes and of great intensity. It may be absent, although the most prominent symptom. The temperature is vexing; tympanites and vomiting are variable in their appearance, and conflicting. Acute indigestion and nephritic colic are most confounding; the pelvic derangements lend no small assistance to the general confusion. To the practiced eye the semi-shock in the acute and the peculiar *malaise* in the chronic cases accentuate its intuition.

As I said before, the condition of the viscera and appendix furnish food for controversy, even after removal. As regards treatment, whether it shall be medical or surgical, brings the issue for yourselves to decide. There is no question the literature of this subject has changed rapidly during the past few years to more conservatism in the use of the knife, and personally and from individual experience I have not found the relief from appendisectomy that is claimed or I had expected. Without citation of individual cases, the results have been far from gratifying, nor do I believe the death-rate as light as reports would make us believe.

I present here an extract from one of the daily journals of last week, which probably escaped the notice of even the majority of the profession, bearing mute but inglorious witness to the prevalence of its abuse :

NEW YORK, February 24.—Norman Munro, the yachtsman and publisher, died at 6:15 o'clock to-night, at the Hoffman House. The cause of death was heart failure.

Mr. Munro had undergone an operation for appendicitis, but it was afterward found that the patient was not suffering from the disease, and that the operation was not necessary.

Henry, Mr. Munro's eleven-year-old son, who attended a private school at Dobbs Ferry, had his vermiform appendix removed by Dr. Abbee on Sunday last. The boy had complained of a pain in his right side immediately after coasting. He is convalescent now.

Mr. Munro complained of a soreness in the right side early in the week, and suspected that he had appendicitis. Under ordinary circumstances he would not have given the matter much thought, but his symptoms being similar to those of his son led him to believe that he was suffering from the same disease. Mr. Munro became interested in the subject of appendicitis, and decided to have the appendix removed. The patient was put under the influence of ether on Friday and the operation was performed.

No foreign substance was found in the appendix of the parent or in that of the son. There was only a gangrenous inflammation of the appendix.

Mr. Munro recovered from the effects of the ether and conversed with his physicians half an hour after the operation.

He seemed confident that he would pull through just as his son had done. During the night and early morning his condition grew rapidly worse. At 2 o'clock in the afternoon Dr. Abbee said the end was looked for any moment. His family was present when he died.

"A victim of experiment" were the flashing head-lines in large type that chronicled the catastrophe, although the operation it appears was performed by Dr. Abbee, one of the leading men in our ranks.

The discussion of this interesting subject can not fail of the most salutary effect at all events, and for the sake of that great medical enlightenment that is making our age more brilliant and progressive than any of its predecessors, I hope it will continue until the veil is lifted from its present obscurity and the refulgence of its promise becomes brighter for the ordeal it has endured.

LOUISVILLE.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, March 9, 1894, Dr. T. S. Bullock, Vice-President, in the chair.

Dr. A. M. Vance presented a child, three years of age, that had been operated on last April, and again the following June, for microcephalus, the condition being typical. The patient recovered promptly from both operations, being able to leave the hospital each time on about the sixth day. There had been no improvement in the child's condition, and the operator came to the conclusion that craniectomy for microcephalus was an unjustifiable operation. He had reached this conclusion from observations in two cases operated upon, and from reports of other surgeons.

Dr. Vance also showed a young man he had operated upon for aneurism of the femoral artery. The patient had been hurt about two and a half years ago by a piece of steel penetrating the thigh. The bleeding was excessive, but was controlled by a compress. Subsequently the aneurism developed, and had been dissected out on the 19th of Septem-

* Stenographically reported by C. C. Mapes.

ber, 1893. The large vein was involved, as well as the femoral artery, and the whole mass had been removed, the good condition of the patient at the present time proving the wisdom of complete dissection.

The essay was read by Dr. T. L. McDermott; subject, "Appendicitis from a Medical Standpoint." [See page 305.]

DISCUSSION.

Dr. A. M. Vance: I agree with Dr. McDermott, that appendicitis is one of the most interesting subjects before the medical and surgical world at the present time. The question arises in each case whether it is a case for the physician or surgeon, and I must say at the beginning that I think one of the greatest faults in the outcome of a great many of these cases is that the doctor does not call the surgeon sufficiently early. I have operated for appendicitis ten times and lost four patients. Of the four patients that died, two were the subjects of general peritonitis, and were practically moribund before the operation was performed. In one case the first symptoms had appeared about eighteen hours before, the other about three days. I believe if both had been operated on at the very onset they would both have been saved. Of the other two cases, one was in active sepsis at the time of the operation; Dr. Bailey and several of the other members present witnessed the operation. The man died from sepsis without paresis of the bowel that we nearly always see, because the bowels moved freely, and there was no tympanites at any time. I believe firmly that, unless a case of supposed appendicitis is practically well in twenty-four hours from the first symptom that attracts attention, an operation should be performed. It is my opinion that this will be the treatment hereafter.

I am appointed to write a paper upon the "Determination for Operation in Appendicitis" for the next meeting of the Kentucky State Medical Society, and I believe the whole subject can be covered in one line—"Diagnosis, then operation."

Dr. Wm. Bailey: I do not know that I have any very thorough convictions about the subject under discussion. I am not sure about the many cases claimed as having been cured by the physician really have been appendicitis. There is great difficulty sometimes in differentiating appendicitis from what we used to call typhlitis and perityphlitis, those cases in which the appendix is not involved. I believe that a large

number of them get well even under the care of the ordinary physician. But cases of undoubted appendicitis, I am in doubt whether they ever recover without surgical procedure, and I think the greatest difficulty is in making that differential diagnosis. Great stress is laid upon the McBurney point, a prominence midway between the anterior superior spinous process of the ilium and the umbilicus; it is evident at first sight that this can not avail because of displacement of the appendix. There can not be a stated point of prominence if, as has been proven by operations, the appendix is displaced, and I doubt if, the appendix being behind or external to the cecum, there would be a point of prominence. There is, however, one important diagnostic point that occurs to me, and that is tension of the muscle on that side, even before a tumor can be recognized or there is any marked tenderness. I do not think we ought necessarily to wait for a tumor. I think the impression made by perforation would be manifested by the impression made on the pulse. Now, in the case Dr. Vance speaks of, the heart was decidedly impressed, and, while the operation was well and quickly performed, I do not think recovery could have been possible under any circumstances.

Of course we have all seen cases of so-called typhlitis, accumulation of fecal matter in the cecum, etc., give rise to symptoms similar to those manifest in appendicitis; the tumor may even be more marked than in an ordinary case of appendicitis, and I think the great difficulty is in the physician determining whether it is appendicitis or not; I would make it largely a question as to surgical interference, whether or not we can demonstrate that it is a case of appendicitis. I have seen a number of cases of so-called appendicitis (I regarded them as such) recover under medical treatment. In my observation of thirty or thirty-five years in my own practice I have had no occasion to resort to surgical measures in the treatment of so-called appendicitis, and have never had a case die. Perhaps they were simply cases involving the cecum, yet local peritonitis developed in some cases. Frequently I have seen marked tumor in the appendicular region with constitutional impression, elevation of temperature, quickened pulse, tenderness on pressure, and rigidity of the muscle, etc., yet I do not know whether they were appendicitis or not.

Dr. J. G. Cecil: I have no very pronounced opinion in regard to appendicitis, because my individual experience in that direction is very limited. Like my friend, Prof. Bailey, I have never seen a case in

my own practice that I can say positively was appendicitis. Those cases that I thought were appendicitis have recovered without operation. In the cases that I have seen operation has not been indicated; the cases that I had every reason to believe were appendicitis have gotten well without it. However, I recognize the fact, which is established beyond any reasonable doubt, that many of these cases do necessarily require an operation to save them. Any opinion of a given case that I might have would, of course, be based upon the diagnosis of the case, my judgment as to operation would depend upon the diagnosis, and I am prepared to say, if I were called to see a case of supposed appendicitis, and could make out from the symptoms and history of the case that suppuration or perforation had occurred, I would not hesitate a moment in advising an operation. Until this feature could be substantiated I should be inclined to hesitate. I do not believe that every case of supposed appendicitis requires operation at once. It all depends upon the diagnosis. If a case of suppurative appendicitis is established beyond question, then an operation is demanded, but neither the surgeon nor the physician, to my mind, has yet given us a schedule of diagnostic points that will enable us to say just what is the proper procedure. Notwithstanding the very pronounced and decided views taken by both sides, I am still "on the fence."

Dr. J. L. Howard: I certainly think that appendicitis is a surgical disease so soon as the diagnosis is made, and should be operated upon without further delay. I have been unfortunate enough in the last year to have had two cases of appendicitis, one operated upon, the other not, both dying. The first case was a young man whom several of the Fellows will doubtless remember. He was taken on Wednesday with pain in the right iliac region; there was no tumor, the pulse was not accelerated, and the temperature up to the time collapse came on did not exceed 101° F. The next morning (Thursday) I made the diagnosis of appendicitis; I did not pay any attention to McBurney's point, because I do not see how we can expect to have any defined point in an organ as large as the cecum, when it varies so much in shape from distension, etc. The diagnosis I made was catarrhal appendicitis, which I shall always regret, because I think it is very misleading, and we should not classify appendicitis as catarrhal. It does not matter what the nature of the inflammation in appendicitis is, it should be operated upon. I called in a surgeon immediately, who agreed with me in the diagnosis, but as the patient had a pulse of 74 and was getting along so

nically he advised waiting a day or two before operating. The case went on until Saturday night, when suddenly symptoms of general peritonitis set in, perforation evidently having taken place. Owing to the time of night I was unable to get a surgeon immediately, and operation was not performed until the next day. The patient was in collapse at the time—and right there is an important point. If I were a surgeon I would never operate upon a patient in collapse. The operation was quickly completed, and the patient died a short time afterward. One of the prominent symptoms in this case was the rigidity of the abdominal muscles on the right side.

The other case had a similar history, and *post-mortem* showed about the same condition. In both cases the appendix was almost entirely destroyed. In the last case it was very hard to find the appendix, only a small portion of it being left, and the cavity was filled with pus. I believe both cases could have been saved had an operation been performed when the diagnosis was first made. All surgeons are agreed on one point, and that is, that any type of appendicitis is liable to suppuration, and the majority of cases, when let alone after suppuration has taken place, will perforate with a fatal result. For this reason I think all cases should be operated upon.

Dr. Turner Anderson: I have expressed myself so often upon this subject before this Society that I really feel I have little to add to what I have already said on the many occasions when we have discussed the question of appendicitis. I can only talk about my own experience, and say that the reports and specimens that have been presented at different times in regard to appendicitis have not changed my views in regard to this trouble.

The first case of appendicitis I saw was in 1866; it was then called perityphlitis; that man is alive and well to-day. The name "appendicitis" was not not known at that time; the nomenclature has been changed since. From that time to the present, I will say that I have never seen a case not operated upon which terminated in abscess or in death. Within four months of the present time I saw a little girl ill with abdominal pain, having a tumor as large as a man's fist immediately beneath the McBurney point, that went on with dysenteric symptoms until it looked very much like the case was one in which an abscess had formed, and that operation would be nothing more than opening the abscess. Dr. W. O. Roberts saw the case with me. The child's pulse was good, inspection of the abdomen showed the tumor; it was not

necessary to palpate, as it could be plainly seen. We concluded to wait until the next day, and the day following we waited again. There was a sudden subsidence of the pain and discomfort, the tumor entirely disappeared, and the little girl made a perfect recovery. Her temperature on several occasions was 103° F.

Nine months ago I was asked to see a case with Dr. Roberts, a little Jewish child. The patient was lying in bed with the leg flexed and all the evidences of perityphlitic abscess; tumor quite large. The mother strenuously objected to any operative procedure, and I told her that I believed the child would get well if let alone. The patient was left in the care of Dr. Roberts by the family physician, who was out of the city. I believed that the child would get well, and would not force the operation. That child is running about now, going to school.

From 1866, when I saw my first case, up to the present time I have not seen a case that has terminated in suppuration, nor terminated in death which was not operated upon. That is a queer personal experience. I do not mean to criticise the surgeons on the subject nor their operative procedures, I simply state facts.

Some months ago I thought Dr. Cartledge had advanced views which were entitled to most important consideration; he suggested that the appendix was an organ which had some special way, when attacked with catarrhal inflammation, of getting rid of that inflammation by discharging into the cecum—some special way which was not understood. I thought it might be possible for the appendix to fill up with a semi-liquid material and form a tumor without closing the proximal extremity of it; I thought there might be something in what Dr. Cartledge said, and the course he suggested might be pursued which would explain recovery of some of the cases treated medically. I was very much surprised at the last meeting of this Society when Dr. Cartledge, without prefacing any thing he had previously said on the subject, exhibited a specimen of an appendix he had removed, the man having presented symptoms of recurrent appendicitis, calling attention to stenosis of the proximal extremity of it. I could not see any thing the matter with it. There had been no perforation of that specimen. So that my idea is that it was a case of catarrhal appendicitis where the tumor had discharged into the cecum; the accumulation having been gotten rid of in that way. Though Dr. Cartledge declared there was no such thing as "catarrhal appendicitis," he presented an appendix which, so far as I could see, had nothing the matter with it. It

shows how difficult it is for us to arrive at a satisfactory classification or to intelligently discuss this subject from a pathological standpoint. Therefore, discussion of the subject from a clinical standpoint at the present time is the only standpoint from which we can get any special information. I believe, if I were called upon to demonstrate whether an operation should be performed for appendicitis in an individual I had a great deal of interest in, I would decide in the negative. I have seen a great many cases of appendicitis, have been present at the operation, have seen the appendix removed, and have not seen positive evidence of disease nor sufficient evidence, in my judgment, to justify operation. And, as I say, I have not seen a case terminate fatally which was not subjected to operation.

There is one case to which I want to call attention, without mentioning any names, where I think a man would have had better chances of life if he had not been operated upon. He was a beer drinker, obese, flabby, had a weak heart, a depressed nervous system, and, perhaps, kidney trouble in addition. I think that man would have stood a much better chance to have gotten well if he had been let alone. He died soon after the operation, and, so far as I am able to offer an opinion, there was nothing in the appendix that could have caused the symptoms under which he was laboring at time of the operation. I believe that operations for appendicitis are being performed too frequently, that there is entirely too much being done in this line. This thing of talking about recurrent attacks of appendicitis and operation to prevent the dangers that may come I think is a grave mistake, and believe it is a great deal better to trust to our old methods of treatment in these cases than it is to open the belly upon the slightest evidence of pain or distension. There are a great many people who suffer from constipation, indigestion, flatulency, etc., which might cause the same amount of pain and tenderness, and I believe that many mistakes are made when the belly is opened. It is a very difficult question, as the essayist has said, to determine what the condition is. I believe in a great many cases those conditions which were supposed to have been the cause of the disease are largely *post-mortem*.

Dr. C. Skinner: I do not know just where I do stand on this subject. It strikes me, though, that since the matter has been brought up it has about resolved itself into a factional discussion. I am going to claim to belong to both sides. Some of you know that I do sometimes work in this line and also practice medicine. It would be a very hard matter

to reconcile the statements made by the different speakers, but when we hear the statement from such men as Drs. Bailey and Anderson, who have been thirty-five and twenty-eight years respectively in active practice, that operation in the majority of these cases is not required, it would seem that their views are entitled to mature consideration.

I believe, though, where there are unmistakable signs of pus, or any evidences whatever of perforation, that operation is justifiable.

Dr. A. M. Cartledge: The more I study the subject of appendicitis the more I find there is to be known in connection with it. When I thought, five years ago, that I knew a great deal about appendicitis I find that I knew very little about it, and I want to say once for all that my views on the disease both as to pathology and treatment, time of operation, and diagnosis have been the subject of constant change. Even a year ago had I been interrogated as to the nature of the trouble where a patient had recurrent attacks of pain and a lump in the right iliac region, with temperature of 101° , I would have said "catarrhal appendicitis" and advised against operative procedure, believing that the man would probably get well. If evidences of pus were present I would have waited until I thought there were anterior peritoneal adhesions to serve as a protection to the general peritoneal cavity, then go ahead and open the abscess and drain it, removing the appendix. If asked the question, what I would do in the perforative type where rupture had occurred primarily with the probabilities of pus in the abdomen, I would have answered just as I would at the present time that operation is imperatively demanded at once. I now believe that all cases of appendicitis that can be so diagnosed without question should be operated upon. As you all know, I differ with the majority of surgeons in regard to the pathologic classification of this affection. For instance, look at the discussion of the subject to-night, what a variable course it leads. Here is a gentleman who says, from what knowledge we have of the clinical manifestations and clinical history of these cases, that there is no material difference between appendicitis and the older terms of typhlitis, perityphlitis, etc., and further makes the statement that there is no case of appendicitis that ought to be operated upon, that he would not advise operation in any case. If this does not call for some more definite classification of this disease I can not conceive of any thing that would do so more than this discussion to-night. To revert to the specimens shown at the last meeting of this

Society, I selected three specimens illustrating three types of the disease. My object in presenting the specimens was to try and throw some light on the pathology and classification of the disease. In the specimen Dr. Anderson has mentioned, which was a case operated upon the day of the meeting, there was a distinct stenosis about one half inch from the base, the result of cicatrization of former inflammation; there was a history of several attacks of undoubted appendicitis; the appendix was found coiled up behind the cecum and adherent, enormously distended with liquid fecal matter and pus. The appendix was slit open in order to show the stricture. It was a typical case of so-called catarrhal appendicitis, a condition which I claim can not be recognized and does not exist. I claim that all lesions in this situation sufficiently well-marked to be denominated appendicitis are primarily ulcerative or perforative in type. Those cases heretofore called catarrhal appendicitis I am confident were ulcerative in character, which led to stenosis at some portion of the lumen of the appendix.

It seems that the point which has attracted the most attention in regard to the specimen presented was the pathological condition, and this is the very point that I regarded as being the most apparent. There was plainly a stricture, the continued contraction of which will eventually lead to either one of two pathological terminations—complete stenosis with distal distension and rupture, or retention with infection and general septic inflammation of the appendix leading to necrosis and perforation. The case was operated upon before rupture had taken place, and the result shows the wisdom of such a procedure.

As to exploratory incisions being harmless, it is probable that they are not harmless, but by this means of confirming diagnoses we have been enabled to clear up a very wide field of surgery. Twenty-five years ago the greatest problem before the surgical world was the diagnosis of ovarian cysts, but matters are now so thoroughly understood that even the country practitioner is able to make the diagnosis without question. Since this is true of exploratory incision in ovarian tumors I see no reason why the same rule should not be applied in appendicitis to the end that we may better understand the pathology. In our present understanding we know that occasionally other conditions present pathological features which can hardly be differentiated. I remember having operated upon what I thought to be a typical case of appendicitis which proved to be tubal pregnancy. The sac and contents were removed, and the lady made an easy recovery.

Dr. McDermott suggests that physicians ought to become more careful about advising operation for appendicitis. I heartily indorse this portion of his remarks, but the deduction he makes is entirely from the standpoint of observation. While a man's past experience is very valuable as a guide, still it should not be entirely convincing. The probabilities are that men to-day are operating for appendicitis who a year or two ago would have advised against it. I can not understand how a man can stand up and say that operation for this disease is not advisable and should not be performed in any case when he has seen the abdomen opened, where the appendix has been found perforated and gangrenous and the cavity filled with pus. . . .

From the anatomy of the appendix it will be apparent that a part of the cecal contents may be forced into it, and may again be discharged into the cecum. We know that fecal matter does not normally occupy the appendix, its contents being only a mucous secretion, and I take it when fecal matter is found it is *prima facie* evidence that the appendix or the door to its entrance is diseased. This is interesting in connection with the so-called cures of appendicitis by the administration of opium, etc. A man has an attack of what is diagnosed by the attending physician appendicitis, he is treated by the usual medical methods and recovers. Some time afterward he has another attack, and consults another physician, and under similar treatment again recovers. Say he has six or seven such attacks, and is seen by as many different physicians, each of whom record it as a cure without operation. Finally he has a more severe attack, perforation evidently takes place, the patient is referred to a surgeon, is operated upon, and dies; of course the death is only recorded once and the case is recorded seven times as cured by medical treatment. Therefore statistics, as quoted by our essayist, under these conditions would seem to be of little practical value. I am not inclined to believe that undoubted appendicitis is ever cured except by operative treatment. The appendix may become distended, and if the stricture is not complete the contents may be discharged back into the cecum, but it does not necessarily follow that the patient is cured, for the probability of future trouble is very great.

When statistics are quoted to us that ninety-five per cent of the cases of appendicitis recover spontaneously they are certainly the first, second, or third attacks, as I have before indicated. In other words, it is the point of observation from which you look at them. While Dr. Anderson and the other speakers may have treated cases of undoubted

appendicitis which recovered, and some of which may still apparently remain well, it is no sign that they may not yet develop a perforative attack and die.

One word in regard to the diagnosis: Rigidity in the right iliac region, localized pain acute in character, elevation of temperature over 100° F., and vomiting, are indicative of appendicitis ninety-eight times out of a hundred, and demands operative interference. In the other two per cent the mistake is pardonable for the good done the ninety-eight.

Dr. W. L. Rodman: He who says that operation should never be performed for appendicitis is certainly wrong; on the other hand, those who say that the great majority of these cases should be operated upon are as far from the truth. I am satisfied that the tendency in this country is to operate too much for this affection. I can not understand how any man can say that there will not be found cases of gangrenous appendices that ought to be operated upon, cases that can not be relieved in any other way. I believe the middle course is the safer. Further, I believe in the English practice of operating between attacks, as we find patients in the best condition to withstand a laparotomy.

H. A. COTTELL, M. D., *Secretary.*

PATHOGENY OF PNEUMONIA.—Dr. Wassermann, assistant in the Institute for Infectious Diseases under the direction of Professor Koch, writes on the differential diagnosis of inflammatory lung affections. Pneumonia may be caused in several ways, hence the importance of a careful microscopical examination of the sputum in each case. We are acquainted, he points out, with a number of parasites capable of exciting pneumonic disturbance—Fraenkel's diplococcus, Pfeiffer's influenza bacillus, Friedländer's bacillus, streptococci, and staphylococci. In two cases of lung disease of long duration, with a temperature of the septic type, the sputum was found to contain large numbers of streptococci, but no tubercle bacilli; had it not been for the examination of the sputum the cases could easily have been taken for tuberculous disease. Dr. Wasserman controverts the commonly held opinion that the prevalence of pneumonia during epidemics of influenza is due to the effect of the attack of influenza rendering a person more susceptible to pneumonia. In the Institute for Infectious Diseases, in cases of pneumonia with influenza, the sputum was found to contain pure cultures of influenza bacillus, and hence this pneumonia is to be regarded as being an extension of the influenza process.—*New York Medical Record.*

Reviews and Bibliography.

The International Medical Annual and Practitioners' Index. A Work of Reference for Medical Practitioners. Price, \$2.75. New York: E. B. Treat, Cooper Union; Chicago, 199 Clark Street.

Those who are familiar with the International Annual of Medicine need no notice to call their attention to its special merits as a reference work on the late advances made in the various branches of medical science. When we call to mind the high standing of its various editors and compilers we have a guaranty of its true merits. In fact, it is almost essential to the library of all students and practitioners of medicine and surgery who wish to keep abreast with the profession. The whole work is above adverse criticism. Every subject is fully indexed.

T. B. G.

HOLDEN'S MANUAL OF THE DISSECTION OF THE HUMAN BODY. Edited by John Langton, Surgeon to and Lecturer on Anatomy at St. Bartholomew's Hospital, etc. Sixth edition, revised by A. Hewson, M. D., Demonstrator of Anatomy, Jefferson Medical College, Philadelphia, etc. Three hundred and eleven illustrations. Price, \$3. Philadelphia: P. Blakiston, Son & Co., 1012 Walnut Street. 1894.

THE STUDENT'S QUIZ SERIES: SURGERY. A Manual for Students and Practitioners. By Bern B. Gallaudet, M. D., Demonstrator of Anatomy and Clinical Lecturer on Surgery, College of Physicians and Surgeons, New York, etc., and Charles N. Dixon-Jones, B. S., M. D., Fellow New York Academy of Medicine and British Gynecological Society, etc. Philadelphia: Lea Brothers & Co.

A TREATISE ON HEADACHE AND NEURALGIA, INCLUDING SPINAL IRRITATION, AND A DISQUISITION ON NORMAL AND MORBID SLEEP. By J. Leonard Corning, M. A., M. D., Consultant in Nervous Diseases to St. Francis Hospital, etc. With an appendix.

SYLLABUS OF LECTURES ON THE PRACTICE OF SURGERY. Arranged in conformity with the American Text-book of Surgery. By N. Senn, M. D., Ph. D., LL. D. Price, \$2. Philadelphia: W. B. Saunders, 925 Walnut Street. 1894.

TRANSACTIONS OF THE AMERICAN ORTHOPEDIC ASSOCIATION. Seventh Session, held at St. Louis, Mo., September 19, 20, and 21, 1893. Volume VI. Philadelphia: Published by the Association. 1894.

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BLOODLESS AMPUTATION AT THE HIP-JOINT.

A few months since Dr. John A. Wyeth, in publishing the results which have followed the application of his great device for rendering amputation at the hip-joint bloodless, caused the history of this major operation to be reviewed in the medical journals, and stirred up a most interesting controversy among the surgical antiquarians.

In our issue of December 16, 1893, we quoted a letter from Dr. Wyeth to the editor of the New York Medical Journal, wherein he pays tribute to Dr. Walter Brashear, who did an amputation at the hip-joint in 1806, and gives as his authority the address delivered by Dr. David W. Yandell before the American Surgical Association in 1890. In view of these considerations the following to the New York Medical Record from the pen of Dr. W. F. Arnold, Passed Assistant Surgeon, United States Navy, can not fail to interest our readers:

I inclose Dr. Brashear's description of his method of hip amputation, which is published in an appendix to Mott's "Velpéau's Surgery."

One who did not believe (as I most assuredly do believe) that Dr. Brashear performed the operation as stated, might give him the credit that his priority deserves, when he has described so minutely the method almost universally preferred to-day, with modifications which can not affect its essential character to suit individual operators. I was at the pains to correct some misstatements on this subject in a short letter that appeared in your journal July 18, 1891. This letter indicated the popular diffusion of Dr. Brashear's fame. He was given credit for his work by Dr. Paul F. Eve,

both in his "Remarkable Cases in Surgery" and in his lectures for many years on surgery in Nashville, Tenn.; and I am told that Dr. Valentine Mott, sr., reviewed the case annually in his lectures at Bellevue in *ante bellum* days.

I have made some efforts, in the way of private correspondence with the authors of some modern representative works on surgery, to secure for this backwood's surgeon the acknowledgment that is due his advanced judgment, but without avail. Hence I announce that I have forwarded to *The Lancet* also a copy of Dr. Brashear's letter, in order to give it the widest diffusion possible in our tongue.

While I appreciate the expedients of Dr. Wyeth to the extent of not only having done every thing in my power to have them introduced into our service, but also agreeing heartily with a recent reviewer, who calls this method for the prevention of hemorrhage "one of the greatest improvements of modern surgery," yet I am willing . . . "to go still further back." I can perceive no valid objection to the longer journey, and I doubt if Anglo-Saxon justice will deprive a pioneer of his deserved fame, either for having been forgotten or for not having been known.

[LETTER FROM DR. BRASHEAR TO DR. P. S. TOWNSEND.]

PHILADELPHIA, August 13, 1846.

MY DEAR SIR: In conformity to promise, I now give a brief statement of the operation which I performed in Bardstown, Ky., in August, 1806, on the hip-joint.

The subject was a boy, seventeen years of age. Without assigning the causes which led to the necessity of the operation, the same was, after consultation with Drs. Harrison and Goodlet, conducted in manner following, first premising that, in absence of any knowledge of an established mode for this operation, a common-sense reasoning as to its safety and facility alone dictated the manner of performing it. Therefore an operation of the thigh in the ordinary manner was determined on, as remote from the hip-joint as circumstances might justify (in this case about mid-thigh). The amputation was performed, and the arteries secured.

The next step was to make an incision to and from the lower end of the bone, externally, over the great trochanter to the head of the bone and upper part of the socket. The dissection of the bone from the surrounding muscles was simple and safe, by keeping the edge of the knife resting against the bone. The bone being disengaged from its integuments at its lower extremity, was then turned at a right angle from the body, so as to give every facility in the operation to separate the capsular ligament and remove the head from its socket. After the operation, nothing more than ordinary dressings were used, and in the course of a short time the patient removed to St. Louis, where he was living within a few years past.

Although Dr. Yandell never saw the letter written by Brashear, it will be seen how accurate were his sources of information when he says: "The operator divided his work into two stages. The first consisted in amputating the thigh through its middle third, and in tying all bleeding vessels. The second consisted of a long incision on the outside of the limb, exposing the remainder of the bone, which, being freed from

its muscular attachment, was then disarticulated at its socket." It is also clear that Dr. Vandell's annal is no less than truth wherein he says: "The young Kentuckian was the first to amputate at the hip-joint in America, and the first to do the real thing successfully in the world."

A SIN OF OMISSION.

In our last issue the published proceedings of the Louisville Surgical Society presented a hiatus which did manifest injustice to our esteemed friend and contributor, the learned professor of surgery in the Hospital Medical College, Dr. H. H. Grant.

At that meeting Dr. Turner Anderson reported a case as follows:

About the 22d of last November this patient, Mr. R., received an injury to the knee-joint. I was sent for, but, being in bed with *la grippe*, the patient was seen by another surgeon, who made application of a bandage, recognizing that the patient was suffering very much. After I had recovered the man came to see me, and I at once recognized, I believe, a form of injury with which I consider myself somewhat familiar, a rupture of the internal lateral ligament of the knee-joint.

To which Dr. Grant replied as follows:

I saw the patient in question before Dr. Anderson did; as has been stated, he was called but was unable to attend to the case. When I saw the man he had already been under the care of some other doctor for two or three days; he evidently had a badly sprained knee. He was not in bed, but was suffering a great deal of pain. I put him to bed, and put a splint on his leg, covering the joint with a layer of absorbent cotton saturated with lead-water and opium; kept him in that position for two or three days, until much of the swelling disappeared, when I applied a plaster-of-Paris dressing, fixing the joint. He wore this dressing with great comfort, and after twenty-four hours he was able to get up and walk about the house. After four or five days he was able to look after his business, and came to my office with the bandage on his knee. However, he was greatly disturbed lest it might make his knee stiff. Although I assured him there was no possible danger of any thing of this kind, it is evident that he did not have as much confidence in what I said as he might. By this time Dr. Anderson had recovered from his attack of illness and the patient applied to him.

The last time I saw the patient the plaster-of-Paris dressing was still on his leg, and if he had remained under my treatment it would still be there I think. The character of the lesion I have no doubt is an ordinary

sprain; just which ligament is torn away it is impossible for me to say. I question whether there is any way of determining the exact lesion in these cases. In all sprains there is a rupture of some ligament, and just which was torn in this case is of no practical moment. There was more or less laceration of some ligament, besides a marked inflammatory condition and some swelling, which disappeared under treatment, and, as you will see, very little or none of it remains. Conditions of this kind can be greatly benefited by protection of the knee-joint in a straight position until all the inflammatory trouble has subsided. There is no longer any question in the mind of any surgeon that it is impossible to establish any thing like a true ankylosis by keeping the leg in any position for two or three months or even a year. No damage could have possibly been done this man by retaining the dressing on his leg, and it might have resulted in great benefit. Rest and fixation until the chronic inflammation has subsided is the treatment indicated at present; no fear need be entertained of ankylosis.

The remarks of Dr. Grant appeared in the proceedings some dozen pages distant from Dr. Anderson's report, the intervening pages being filled with matter which bore no relationship to it, and the editor who prepared the manuscript for the printer, not perceiving the importance of the comments upon the case reported, ran his pencil through them. Of course this did Dr. Grant great injustice, since it is evident that the two surgeons were not in exact accord as to the management of the case.

It is sometimes necessary to cancel some parts of a society's proceedings when an issue is crowded for space, but it has always been our aim to sacrifice nothing essential, and we regret the oversight which occasioned this emendation. We hope that our apology will satisfy the aggrieved author, and beg to assure him that it will always give us pleasure to publish any thing he may write or say on matters medical.

Editors American Practitioner and News:

I speak not to disprove what Brutus spoke,
But here I am to speak what I do know.

The statement of Dr. Howard in a recent issue of your journal that "among the hills across the river, known as the Knobs, goitre is by no means rare," and that this is due, among other things, "to the low estate—physical, mental, and moral—of the inhabitants," is, in the language of Dr. Howard, "so misleading that I fear it will do us harm."

The truth is these people average six feet in height and two hundred pounds in weight. It is likewise true that "among the hills known as the Knobs" lawyers, editors, ministers, artists, poets, architects, capitalists, and

last—shall I say and least—many of Louisville's stalwart citizens have their homes. So much for their "physical, mental, and moral estate." And as to that lump of deformity, goitre, I have not seen a case of it from the Knobs during a practice of more than twenty years, and it certainly will be news to the profession here generally to learn that it is common in the locality named.

The doctor, perhaps, had in mind some other locality—further north or possibly *south*. If not, he did great violence to his geography by stretching it to make the "hills across the river known as the Knobs" include the "barren limestone hills of Southern Indiana."

E. P. EASLEY.

NEW ALBANY, IND.

In replying to Dr. Easley it seems rather inconsistent that he, a native Kentuckian, should take issue with me, a Hoosier by birth, on statements made in my paper as to the estate of a certain class of people living in Southern Indiana. As to the locality known as the Knobs, I am fully aware that Dr. Easley does an extensive practice in and around the delightful little city across the river, but his practice hardly extends over a territory covering more than fifty miles east, west, and north of New Albany, as the Knobs do.

No great violence is done my geography, I trust, in the statement that these hills of limestone and sycamore trees extend no further south than the Ohio River.

It will certainly be news to the profession here and the public in general to know that these spindle-shanked, lantern-jawed, sallow-complexioned, white-capping reubens that infest the country I speak of will average six feet in height and two hundred pounds in weight. Certainly from appearances they do not look to be the largest people in the world.

The doctor is certainly misled if he thought I called the hills immediately back of New Albany "the barren limestone hills of Southern Indiana," for surely he must know this very chain extends at least fifty miles to the north alone, and it would be very ungrateful in me to pick out that part of the Knobs where some of "Louisville's stalwart citizens" have their homes, for I have spent several pleasant days among them, observing the beautiful scenery (on the south side of the river), breathing the pure fresh air (from the south), and experiencing the delightful sensation of numerous seed-ticks burying themselves under my cuticle. On my return to the "dark and bloody ground," I have reflected how sensible it was in my Kentucky friends to build their homes where they could get such a beautiful view of their native State.

Certainly it would not be patriotic for me to depreciate the State of my nativity, the home of my many Indiana friends, and especially the birth-place of Gresham and many other noted men.

My mother often said to me, "My boy, you were born in Indiana, but, I am happy to say, on the banks of the Ohio in sight of Kentucky."

J. L. H.

Notes and Queries.

STERILIZATION OF TUBERCULOUS MEAT.—A curious "function" took place on March 15th in a room belonging to the Berlin central slaughterhouse. The committee of superintendence of the slaughterhouse, several magistrates, and other municipal authorities sat down to a meal the *menu* of which ran: "Bouillon of and boiled tuberculous beef." The meat had been sterilized by an ingenious process, too long to give in full detail, but which in the main is as follows: A doubled-walled cylindrical boiler is fitted with iron grills, on which the meat is laid in pieces of a certain size; vessels below the grills serve for the reception of the juice dropping from the meat. The boiler is opened by means of iron doors, which can be closed air-tight. It is connected with the steam conduit of the slaughterhouse, and can bear an overpressure one atmosphere, though as a rule half an atmosphere suffices for the purposes of sterilization. Contact thermometers connected with bell apparatus are passed into the thickest part of the meat, the bell ringing at 100° C. This temperature was reached, even in large joints, in about two to two and a half hours, the temperature in the apparatus itself being then about 120° C. The boiled meat thus obtained looks and tastes like ordinary boiled beef, and the droppings form a concentrated bouillon. Experiments made upon guinea-pigs before and after the steam-boiling prove that the meat is completely sterilized in the process. The apparatus is constructed by Dr. Rohrbeck.

PROGNOSTIC APHORISMS: ALBUMINURIA (WARREN).—If albuminuria appears in the course of another affection and persists more than four weeks it is to be feared that albuminous nephritis will be induced and be irremediable.

The existence of albumen in the urine with a diminished amount of urea is a sign of bad omen.

There is but little hope if in the course of an albuminuria the urine is excreted in small quantity, especially if the diminution occurs suddenly.

When the suppression of urine is total (anuria) the end is necessarily fatal.

A diminution in retinitis is a favorable sign.

Amaurosis accompanied with encephalic pain announces a fatal end, imminent and inevitable.

Acute uremia may cause death in four hours, but, as a rule, in three or five days.

The eclamptic form is less favorable than any other variety.

Microscopic study of the urine by revealing the state of the kidneys is the essential basis of prognosis.

In acute albuminurios nephritis the disappearance of hydropsy without corresponding disappearance of albumen in the urine is of grave portent.

Accidents are imminent if the abundance of albumen coincides with the diminution of the amount of urine.

Bright's disease is always fatal.

Scarlatina in its decline, accompanied with thoracic and cerebral complications due to the existence of albuminuria, is of grave outlook.

The same is true of albuminurios anasarca following measles.

Phthisis and bronchial dilatation are hastened in their course by the appearance of albuminuria.

It is one of the most terrible complications of scrofula and tertiary syphilis.

Erysipelas following in the course of albuminuria is almost always irremediable.

If in the course of a suppurating hematocele or some other chronic affection albuminuria appears the end will be accelerated.

Albuminuria often determines abortion or premature child-birth. If the child is born alive it often dies several days after of eclampsia.—*St. Louis Medical and Surgical Journal.*

THE DEPOPULATION OF FRANCE.—The diminution of the population of France continues to be the subject of comment. Several remedies have been suggested, including that of freedom from taxation for prolific families, with money recompenses to the parents. M. Naquet has now taken up the matter with the vigor which characterized his successful propaganda for the French divorce law. The system adopted by M. Naquet is simple enough, and doubtless would be effective. It consists (1) of rigid sanitary measures in poor districts, and even in country villages, where epidemics are frequent; (2) increased surveillance of children sent out to nurse, and (3) greater facilities for naturalization. The French social economist makes the startling declaration that the mortality among children confided to nurses in the country is over 30 per cent. Prefects of departments, who have shown vigilance against abuses, have been able to reduce this to less than 10 per cent. N. Naquet believes that Italian, Belgian, and Swiss aliens might be easily assimilated in the second generation if they were helped to forget that they were foreigners. Among the working classes especially conflicts like those at Aigues Mortes and near the Belgian frontier might be avoided. At present the baneful methods of protection are extended to men as well as to commercial produce. The former can only lead to depopulation and eventual subjugation.

Special Notices.

CACTINA, the active principle of the *Cactus grandiflora*, has been lately used with much success as a cardiac tonic. It has been found especially valuable in cases of functional disorders of the heart, and produces good results in cardiac dilatation, with anasarca, with or without valvular disease, when digitalis and other drugs have failed. It has no tendency to produce gastric disturbance, and in this respect it has a decided advantage over digitalis. The drug has been put up as Cactina Pillets by the Sultan Drug Company, of St. Louis, and their agents in this country have sent us a sample to test their efficacy. The production is decidedly a pharmaceutical triumph, and their form lend themselves most conveniently to administration. Each pillet contains a hundredth of a grain of Cactina, and having been able to test the value of them in several cases we have found them most reliable and efficacious, and are glad to give them a word of commendation.—*Medical Press*, London, England.

THE ARMOUR LABORATORY is not devoted to the preparation of an extensive line of pharmaceuticals, but is designed solely to develop and carry to the highest condition of perfection those animal products which our *abattoir* provides in such plenty, and which in their finished state (Pepsin, Pancreatin, Peptone, Extract of Beef, etc.) are important items in the materia medica. With the freshest of raw materials, the most appropriate appliances, and the most skillful men obtainable, perfection of preparation is secured. To insure uniformity and invariable accuracy, every article emanating from the Armour Laboratory has to pass the critical examination of our general chemist, who is entirely independent of the manufacturing department, and whose tests are absolutely unbiased and impartial. ARMOUR & COMPANY, Chicago.

DID YOU NOTICE the elegant new advertisement of the Walker Pharmacal Company? No? Well, you are missing a treat if you do not refer to it at once. The immense success that this enterprising firm has met with in the manufacture of Phytoline, and the universal commendation accorded them by the medical profession has induced them to put upon the market a new preparation known as Pineoline, made from the imported ethereal extract of the pine needles. It possesses not only a pleasant odor, but much medicinal virtue. It has been used by some of the most prominent dermatologists and general practitioners in this country with the very best of success. It is indicated in all forms of skin affections, and in any stage in which they may be found. Send to the Walker Pharmacal Company, St. Louis, Mo., for reports and clinical cases on the use of Pineoline and Phytoline.

I HAVE used Peacock's Bromides in four cases of epilepsy, and it is only fair for me to state that I have had good results in each case. In three of these cases there were no attacks at all while the medicine was used, although they had been frequent and severe in spite of the exhibition of the ordinary bromide salts. I say while it was used, because I have had difficulty in convincing some patients that they were not entirely cured after using one bottle, but where I have been able to have them continue the treatment for a reasonable time after the disappearance of the fits there has been no return of them even after the medicine was stopped.

CHAS. C. JOHNSON, M. D., Columbia, S. C.

TO ABORT A CHILL:

R Spts. chloroform,	gtt. xx;
Neurosine,	ʒiij;
Syr. zingiberis,	ʒss.

M. Sig: Take at once.

THE AMERICAN PRACTITIONER AND NEWS

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

FOREIGN BODIES; REPORT OF CASES.

BY WALLER H. DADE, M. D.

Visiting Surgeon to Kentucky State Prison.

A foreign body rarely, if ever, remains in the human tissues without producing disturbances either local or remote. Particles of extraneous matter often become imbedded and encapsulated at the termination of their course, and remain innoxious for a period of time varying in length from days to years, but sooner or later create sufficient disturbance to make their removal imperative. A foreign body should be removed as soon after its lodgment as the physical condition of the patient, the nature of the injury, and the location will allow. Some patients being particularly sensitive to shock, the surgeon must be watchful not to precipitate the condition, but wait until there is a normal equilibrium of the nervous and arterial systems, otherwise any hurry on his part may aggravate a condition he is anxious to obviate. When a foreign body insinuates itself between the divisions of an osseous structure it must be removed at once, even though the administration of an anesthetic be necessary, or a retardation, if not a complete prohibition, of the uniting process will inevitably result. Around the foreign body at its point of lodgment the usual accompanying symptoms of inflammatory conditions, pain, heat, redness, and swelling are present. This is true of the tissues surrounding the tract through

which the body has passed, but is more marked where it finally rests, its irritating presence being no doubt the cause, the amount of inflammation being dependent upon the laceration, the character of the penetrating body, and the parts through which it passes—some tissues being more susceptible to foreign influence than others. The tract through which a foreign body has passed may, and often does, completely close; but this is by no means without exception, for the penetrating mass is rarely, if ever, aseptic, and particles of clothing and other dirty material will not allow the closure of the wound so long as they remain, but a simple fistula with a sero-purulent discharge will denote the existing condition of affairs. I have notes of several cases where, from the entrance to the point occupied by the body, the liquid products of inflammation had never been absorbed, but formed a medium through which a spherical or a roughened body played from end to end of the blind canal, the walls seemingly having lost their power of absorption from the injury done by the missile in its passage. This condition follows more frequently upon gunshot wounds than any other. When the end is reached and the body permanently locates encapsulation as a rule follows, and I have noticed that where this becomes the case fewer unpleasant symptoms arise than when the body is left unencapsulated and free to play at the action of muscles surrounding it. Neuralgia, caused from the pressure exerted upon the surrounding nerves or their terminal filaments by the encapsulated mass, is the most frequent ill effect noticed.

CASE I. D. J., male, age thirty-nine, native, single, laborer, had never suffered from specific disease or any contagion; of medium weight and height; family history good; came to me suffering with a very severe pain over the left side of the head and face; pain was so severe that at times large doses of morphine were necessary to procure the slightest ease. Ten years before, while serving on the frontier in the service of the United States, patient became involved in a difficulty with a fellow soldier; in an altercation that followed he was struck over the left eyebrow with a heavy earthenware soup-bowl. The vessel was broken into small bits. He was dressed by the army surgeon, who, in doing so, failed to remove all of the small pieces of broken ware. The wound healed without any untoward features, and for six years no pain or other symptoms were noticeable to call the patient's attention to the former wound. At about the end of that period a small tumor made its appearance. It was not higher than three lines above the surface.

With it came occasional sharp, darting pain to the eye and side of face on the left side. The tumor did not increase in size, but the pain became more and more severe and frequent. With the assistance of a four-percent solution of cocaine I cut down on a small nodule situated in the transverse fibers of the orbicularis palpebrarum muscle and just at the junction of the fibers of the trigeminus and the portio dura nerves. The tumor was removed *en masse*, and the wound closed with a dressing of collodion and absorbent cotton. The capsule of the mass removed was composed of fibrous tissue formed in circular layers. In its center was a small piece of the china bowl weighing a little over one grain. The patient has been entirely free from neuralgic pain since the date of operation, eight months ago.

In another case of which I have notes the conditions were interesting.

CASE 2. J. H., aged thirty, male, clerk; family history good; had always been healthy. While under the influence of liquor he attempted one night to enter the grocery store of a friend; the grocer, mistaking him for a burglar, shot from the window above, the bullet, a twenty-two caliber, taking effect about midway the thigh, ranging downward and lodging about two inches above the capsule of the knee-joint. For over two years no ill effects were noticed. About this period after the injury the leg began to swell, and following a day's work was painful and inflamed; the pain and inflammation extended from the point of entrance of the ball to and a little out on the knee-joint. By deep digital pressure, made after patient was anesthetized, a tough band-like substance was found to be present. I cut down on it, and the enlargement proved to be a tough, fibrous mass extending downward between the rectus femoris and crureus muscles to the capsule of the joint. In the center of the band of fibrous tissue was a small canal, five and one half inches in length, filled with a sero-purulent fluid in which the bullet could be made to pass from end to end by raising or lowering the limb. The ball and the new tissue were removed. The patient made a good recovery. The swelling and pain have disappeared, and the limb is as useful as ever.

I have under observation another case of a similar nature in which a male adult was shot in the gluteal region. The bullet is sometimes felt just under the skin where it is grasped by the patient, but the walk to the office produces sufficient muscular action to carry it further inward, and it is lost for the time. There is at times great pain in

the sciatic nerve with "flashes" running downward to the popliteal space.

CASE 3. J. S., male, aged twenty-four (previous history good), while attempting to escape arrest was shot from behind with a thirty-eight caliber revolver. The ball entered the right thigh about midway between the gluteal fold and the popliteal space, passing through the femur, fracturing that bone, and lodging in the muscles of the quadriceps extensor. The patient was seen by a physician who did not recognize the fracture, and dressed the leg in a most primitive manner. Six months later, after patient had been sentenced to the penitentiary, the limb was still swollen and painful. The application for a few days of a solution made with equal parts of alcohol and water, to an ounce of which was added a dram of the chloride of ammonia, considerably reduced the swelling. An incision was made from before, cutting down on the divided ends of the femur, and a condition similar to the one related in Case 2 was found. A sero-purulent fluid filled the cavity from a superficial point posteriorly to the space occupied by the ball, extending through the bone, which had never been united. Callus had so formed as to represent the condition of exostosis. The ends of the femur were sawn off, and the entire canal was thoroughly scraped out with a Volkmann's spoon. Silver wire was used to keep the bones in apposition, and a good recovery resulted. The limb was shortened nearly two inches, but by the elevation of the boot the locomotion was not much interfered with. Had the ball been removed at the time of the injury a long period of suffering would have been avoided.

CASE 4. L. B., male, aged thirteen, while playing with a pistol on the fourth of last July, accidentally discharged the weapon, the muzzle at the time being in the palm of the hand. It produced considerable powder-burn and suffering for a time. He was carried to a physician who dressed the wound, but it failed to heal. I saw him during the following January. There was a fistula leading down to the metacarpal bone of the middle finger, from which issued a slight discharge. There was considerable pain in the hand when extension of the digits was required. I cut down to the bottom of the fistula, and after careful examination found a thin paste-board gun-wad which had undergone but few changes. The cartridge was a blank one with only this thin wad to retain its contents. It had penetrated as far as it was possible for so light a body to go. The hand healed rapidly, and no further trouble was experienced.

I have removed more than a hundred and fifty leaden balls from private patients and convicts. Some had remained days, some years, but all producing more or less pain in parts local or remote. I believe it to be best to remove foreign bodies as soon as it is possible. It avoids making a fresh wound, lessens the probability of septic trouble, relieves the mind of the patient, and prevents a period of long suffering.

FRANKFORT, KY.

THE EVOLUTION AND DESCENT OF MAN.*

BY T. B. GREENLEY, M. D.

[CONTINUED FROM PAGE 300.]

In accordance with the admissions of both Darwin and Haeckel a greater stumbling-block presents itself in the outset of evolution. Darwin,[†] in his "Origin of Species," says: "Unless favorable variations be *inherited* by some at least of the offspring, nothing can be effected by natural selection." Natural selection acts only by the preservation and accumulation of small *inherited* modifications. Any variation which is *not inherited* is unimportant for us.

Now, as there can be no inheritance among monera, since their only mode of propagation is *by self-division*, or by duplicating itself, it follows that there can be no inherited variations, and no transmission of them to descendants, and it follows, as Darwin says, nothing can be effected by natural selection. And as neither Darwin nor Haeckel claims any other mode of evolution from lower to higher organisms than natural selection, it inevitably follows that monera could not have evolved or been transmuted into a higher species. There certainly could not have been any inheritance between such equal parts, because inheritance implies parent and offspring.

It will be recollected that this simple, single-celled animal, the moneron, was the product of Haeckel's spontaneous creation on which to commence evolution, but you will observe how it resulted in failure. It will also be observed that Darwin's created first forms of life were bound to share the same fate, as it respects evolution, when tested by the same laws as applied to the moneron. It would have been much more judicious in Darwin to have claimed that some higher forms of life were created by the Supreme Power, so that he would have had a

*Read before the Hardin County Medical Society, April, 1893.

†See Dr. Hall's Problem of Human Life.

better starting point for his evolution, and allowed Haeckel to have produced the lower forms by spontaneous generation, as it certainly was as reasonable to suppose that several other forms could have been produced in that way as the moneron.

Great stress is laid by evolutionists on what they term "reversionary action." Mr. Darwin remarks: "But the principle of *reversion* by which a long lost structure is called back into existence might serve as the guide for its full development even after a lapse of an *enormous interval of time*." "These several *reversionary structures*, as well as the strictly rudimentary ones, *reveal the descent of man from some lower form* in an unmistakable manner."

"This principle of *reversion* is the most *wonderful of all the attributes of inheritance*. What can be more wonderful than that characters which have disappeared during scores or hundreds or even thousands of years should suddenly reappear perfectly developed? We are led to believe, as formerly explained, that every character which occasionally reappears is present in a latent form in each generation. In every living creature we may feel assured that a part of lost characters lie ready to be evolved under proper conditions. Reversion, in the ordinary sense of the word, comes into action so incessantly that it evidently forms an essential part of the general law of inheritance."*

Dr. Hall asserts it to be impossible that what is termed reversion can be explained by the theory of inheritance, as claimed by Darwin. Now, according to this author himself, he gives as the proportion of blood in a descendant of the twelfth generation to be as 1 to 2,048, and if we go back one hundred generations, say to the commencement of the Roman Empire, Dr. Hall says there would be a little more than one to one decillion; but that is only about two thousand five hundred years ago. But if we were to go back to the time of the marsupials, from which the woman Darwin speaks of as having a supernumerary mammary gland in the groin derived it, we would have to count about a million generations according to evolution time.

Now a row of figures to determine the quantity or proportion of blood still remaining in that woman's veins, which she derived from the opossum or kangaroo, would make the head of our best mathematician swim. The row of figures would be, according to Dr. Hall's measurement, 1,750 feet in length. Dr. Hall denies that it is possible a particle of the blood or portion of the corporeal structure of our ancestors, recent

or remote, are retained by us. For proof of this he recites as authorities Huxley, Flint, and others. Huxley says, "So constant and universal is this absorption, waste, and reproduction that it may be said with perfect certainty that there is left in no one of our bodies at the present moment a millionth part of the matter of which they were originally formed." He also says, "Bone once formed does not remain during life, but is continually disappearing and being replaced in all its parts."

Dr. Flint remarks: "It is known that the organic principles of the body which form the basis of all tissues and organs are constantly undergoing change as a condition of existence; that they do not unite with any substance in definite proportions; but their particles, after a certain period of existence, degenerate into excrementitious substances."

Dr. Dunglison says: "The human body, from the moment of its formation to the cessation of existence, is undergoing constant decay and renovation, decomposition and composition, so that at no two periods can it be said to have the same constituents. Setting aside the erroneous pathological notion that assigns to the blood what property belongs to cell life in the system of nutrition, how can we suppose a taint to continue for years or even entire generations in a fluid which is perpetually undergoing mutation, and at any distant interval can not be presumed to have one of its quondam particles remaining." Dr. Hall then asks, "How in the name of logic and science can Darwin explain these supposed reversion in women to the organs of marsupials, or refer their 'supernumerary mammæ,' developed in the inguinal region, to those of the dog or jackal, when about every seven years from that remote period to the present time each individual in the line of descent has changed its entire body, breaking down the lineal bridge a million times and in a million places over which descent has had to travel!" Then, to apply Prof. Huxley's rule to the hypothesis of reversion, it must fall. The professor says: "Every hypothesis is bound to explain, or at any rate not to be inconsistent with the whole of the facts it professes to account for; and if there is a single one of these facts which can be shown to be inconsistent with (I do not merely mean inexplicable by, but contrary to) the hypothesis, such hypothesis falls to the ground, it is worth nothing. One fact with which it is positively inconsistent is worth as much, and is as powerful in negating the hypothesis as five hundred."

Therefore it must be seen that so-called atavism or reversion can not result from physical inheritance, and one of Darwin's strong points in evolution breaks down.

The same arguments will hold good against the claim that the human embryo resembles the fish and has a caudal organ due to inheritance from its ancient progenitors. Haeckel states that in his estimation these resemblances of the embryo to some previous lower forms of life are among the strongest evidences of the descent of man. The branchia, supposed to resemble the gills of the fish, and rudiment of a tail, somewhat like the turtle, are the main points contended for as being inherited from those distant species which lived during the Devonian and lower Carboniferous ages.

If there was any possibility of such so-called reversions being due to heredity, might we not suppose that the embryo would be much more likely to resemble some animal of more modern times, and not revert back to those that lived a million years ago?

A great deal is claimed in favor of evolution by the presence of what they term rudimentary organs, such as teeth, legs, etc. But, as it is asserted they are rudiments of some previous ancestors possessing those teeth and legs complete, and of course recur from force of hereditary influence, the same arguments against this theory will apply as in reversions and embryology.

But we might notice some contradictions in scientific evolution as it pertains to these rudimentary organs. Mr. Darwin says: "Natural selection acts exclusively by the preservation and accumulation of variations which are beneficial." Again, "Natural selection acts only by the preservation and accumulation of small inherited modifications, each profitable to the preserved being." And again, "The continued production of new forms through natural selection, which implies that each new variety has some advantage over others, almost inevitably leads to the extermination of the older or less improved forms."

On account of the appearance of the rudimentary teeth in the upper jaw of the calf, it is of course contended that the bovine species descended from ancestors with perfect teeth. Now will any scientist maintain that the absence of upper front teeth in the cow is an advantage to the animal? I think not. Under many circumstances they would prove of great benefit. As Dr. Hall says, they could bite off the tough grass, herbs, etc., like a goat, and live under conditions where they can not at present. Then if they were evolved from animals with full teeth, why did natural selection allow them to become toothless when it was the law to preserve all useful organs? This was also violating the law that evolution, under the guidance of natural selection

and survival of the fittest, always works to the advantage of the animal toward perfection—from the homogeneous to the heterogeneous, from the simple to the complex. But in this instance it worked backward, and to the disadvantage of the animal. Then, again, it is claimed that the rudimentary legs found in the great boa-constrictor are proof that it descended from ancestors possessing full legs, but think it strange that no other species of snakes possess the same organs, although they are of later descent. But it is puzzling to the mind to properly place the ancestor of the boa, if he descended from a quadruped, as the reptiles and amphibians made their appearance during the Mesozoic period and before quadrupeds came into existence. The same question might be asked, why was he deprived of his legs by natural selection when they were of undoubted utility in the way of locomotion?

This is another instance wherein evolution worked backward in violation of the law and to the detriment of the animal.

We might cite the whale as another instance where his rudimentary teeth and legs are referred to as being due to the same causes as those of the calf and boa. Darwin claims he descended from ancestors with full teeth and legs. Now, as there existed no quadrupeds previous to the time of the whale, it will be hard to prove his pedigree. But admitting evolutionary descent, and saying that his ancestor was, as it is claimed, hoofed, possessing both legs and teeth, it would seem to throw a very heavy burthen on natural selection to have evolved the horse with teeth and legs and evolved him back into an animal without legs and upper teeth.

This was not in accordance with the law of natural selection, which tends to preserve all essential parts which are useful to the animal, and to work up from the simple to the complex, and from the homogeneous to the heterogeneous. But in this instance, as in others mentioned, it was depriving the animal of useful organs. Although the whale is principally a carnivorous animal and lives in the water, it is very apparent that legs and upper teeth would be of some benefit to him when close to the shore or sand-bar, both in locomotion and in procuring his food. Should he by accident be tossed by a wave on shore, legs would very much assist him in getting back to the water.

Prof. Haeckel undertakes to solve the whole whale problem. He says: "It is probable that the remarkable legion of whales originated out of hoofed animals which accustomed themselves exclusively to an aquatic life, and thereby became transformed into the shape of fish."

Darwin thinks it very remarkable, in speaking of the rudimentary organs in the whale, that there exist none in the dugong and lamantin, as they are also marine mammals. He says "that natural selection will tend in the long run to reduce any part of the organization as soon as it becomes through changed habits superfluous;" and further remarks, "that any variation in the least degree injurious would be rigidly destroyed."

Dr. Hall, after referring to these laws of evolution, asks why natural selection allowed the growth of the hump on the camel's back, as it is utterly useless as well as injurious to the animal. He also refers to the large tails of many animals as being useless and in some injurious. Yet natural selection allowed them to be evolved both at the expense of nutrition and detriment to the animal. We might also speak of the enormous length of the neck of the giraffe, requiring the work of evolution a vast length of time to produce it through the agency of slight variations and natural selection, these agencies having no assistance from heredity, as it seems, as far as we can learn, the giraffe had no ancestors nor descendants. It is claimed, however, that he was especially evolved as a matter of accommodation to give him the advantage of browsing on the limbs of trees, as vegetation on the surface was not more than sufficient to supply other herbivorous animals.

Then, again, can any scientist tell us the advantage to the animal of such enormous horns as the elk and some others of his genus possess? They are greatly to his disadvantage in passing through timber or brush, and may lead to his capture by the huntsman. Then, again, some of his class, after their growth, shed them, showing all the work of producing them to be nugatory.

Other instances of *evolutionary* work without benefit to the animal might be cited, but sufficient has been said by way of illustration.

Dr. Hall mentions an amusing instance of a misconception of the laws of natural selection by one of its most able defenders. It was on the occasion of Prof. Huxley's first lectures in New York on the subject of evolution, when he announced a demonstration of the subject that placed it on as high a plane of science as the Copernican theory of the solar system. It consisted in illustrating the descent of the horse from his ancestral forms by their fossil remains. He says: "But this is probably the most important discovery of them all—the orohippus—which comes from the oldest part of the eocene formation, and is the oldest one known. Here we have the *four toes* on the front limb complete, three toes on the hind limb complete, a well-developed ulna, a

well-developed fibula, and the teeth of simple pattern. So you are able, thanks to these great researches, to show that, so far as present knowledge extends, the history of the horse type is exactly and precisely that which could have been predicted from a knowledge of the principles of evolution. And the knowledge we now possess justifies us completely in the anticipation that when the still lower eocene deposits, and those which belong to the cretaceous epoch, have yielded up their remains of equine animals we shall find first an equine creature with four toes in front and a rudiment of the thumb. Then, probably, a rudiment of the fifth toe will be gradually supplied, until we come to the five-toed animals, in which most assuredly the whole series took its origin. This is what I mean, ladies and gentlemen, by demonstrative evidence of evolution. And the doctrine of evolution at the present time rests upon exactly as secure a foundation as the Copernican theory of the motion of the heavenly bodies."

Here, then, we have an illustration of the strongest evidence of the truth of evolution by one of its oldest advocates.

Now it will be observed that this illustration of the descent of the horse is diametrically in opposition to the laws of evolution by natural selection, as laid down by its great authors and defenders, Darwin, Spencer, and Haeckel, and even by Huxley himself. This, as previously quoted, is, that evolution works for the benefit of the animal, from the simple to the complex, from the homogeneous to the heterogeneous, and all that is gained by variation for the benefit of the animal is preserved by natural selection and transmitted by heredity to its posterity; and any variations detrimental to the animal are destroyed by natural selection in accordance with the law of survival of the fittest.

In Prof. Huxley's horse case it will be seen that evolution, as in the boa and whale cases, is again working backward in violation of its laws, where it is evolving complex animals' feet into the simple; for it is certainly evident to the senses of all of us that a five-toed animal, which he expected to find in the strata of deposit below the four-toed animal, is higher in the scale of *creation* than one with a single toe or hoof, and of course more complex.

Hence, it will be seen that the great professor fails to demonstrate very clearly that the theory of evolution stands on as firm a scientific basis as the Copernican theory of astronomy. And I think we are justified in saying that when all the so-called demonstrations and illustrations of the theory are critically examined they will amount to about

as much, scientifically speaking, as Prof. Huxley's demonstration of the descent of the horse. The scientific aphorism, "The desire to establish or avoid a certain result can so warp the mind as to destroy its power of estimating facts," seems to have prevailed with these scientific demonstrators. But what must we conclude in regard to the truth of this theory when we apply to it the test of science, "That if any fact can be proved in opposition to the theory then it falls to the ground." We have seen where evolution, under natural selection, failed to satisfactorily account for the so-called rudimentary legs and teeth in the calf and whale and boa.

Great men, especially naturalists, are liable to be mistaken in theory as well as in facts. Prof. Haeckel, in speaking of his spontaneous generation theory, says: "The impossibility of such a process can, in fact, never be proved. For how can we know that in remote primeval times there did not exist conditions quite different from those at present obtaining and which may have rendered spontaneous generation possible? Think only of the fact that the enormous masses of carbon which we now find deposited in the primary coal mountains, etc. . . . At that time, under conditions quite different from those of to-day, spontaneous generation, which now is perhaps no longer possible, may have taken place. Indeed we can even positively and with full assurance maintain that the general conditions of *life* in primeval times must have been entirely different from those of the present time."

Now, when we refer to the time when the first organic form made its appearance in the world, we will find it was in the Laurentian age, perhaps many millions of years before the carboniferous or coal deposit. Therefore but little carbon existed at that early period of time, and consequently the professor's moneron could not have been spontaneously produced on account of the great quantity of carbon existing.

He claims that archigony (spontaneous generation) can only occur in single-celled animals by autogeny. He explains the process thus: "If through plasmogeny plasma already exists, it needs then only to individualize itself in the same way as the mother liquid of crystals individualizes itself in crystallization." But the crystal is not possessed of life, and the professor has not explained how the moneron received the vital principle. He also fails to explain how the conditions of life at the time his moneron was made were different from what they are at present, which we will admit would be hard to do, as no life existed at that time.

Reports of Societies.

THE LOUISVILLE SURGICAL SOCIETY.*

Stated Meeting, February, 1894, Dr. A. M. Vance, President, in the chair.

Dr. W. O. Roberts (Cystic Tumor of the Orbit): This patient is sixty-one years of age. Forty-five years ago, that is, when sixteen years old, he was kicked by a horse just above the brow, receiving a compound fracture of the outer table of the skull. The attending physician told him that the inner table of the skull was not injured. The wound healed with marked depression at the seat of the blow. He had no trouble following the injury, with the exception of headache; there was never any indication of epilepsy. There was some defect in his vision, and he claims that his eye on that side was pushed down somewhat.

Twenty-nine years ago, while chopping wood, a stick flew up and struck him on that side of the head, two splinters being driven into the eyeball; a larger piece struck him just above the eye, and he thinks pushed up that part of the brow which was forced down by the kick of the horse. The splinters which penetrated the eyeball had to be removed by his family physician.

Two or three months after receipt of the last blow a tumor made its appearance just above the eye near the nose, and, as he says, it pushed the eye considerably down, and as it grew larger it extended to the right side and has attained the size which you see now, being much larger than a man's fist. There is very little vision in the eye on that side; he is able to distinguish daylight from darkness, but nothing further. There has never been any acute pain from the growth.

DISCUSSION.

Dr. Turner Anderson: In the case before us I take it that the tumor is clearly cystic; the pericranium has been elevated by the effusion, and the imperfect line of bone at that point formed before the vessels became so thoroughly constricted that new bone could not be produced.

Dr. W. L. Rodman: There occurs to me three possible views in the

*Stenographically reported by C. C. Mapes.

case: First, it is possibly a dermoid cyst, for it occupies one of the favorite regions of the body for such growths. While dermoid cysts are congenital, they very often do not make their appearance to such extent as to be noticed until advanced life. Secondly, it may be a cyst which is growing from the frontal sinus. Thirdly, it may be a cyst growing from the bone, probably the upper part of the wall of the orbit. It seems to me this view would be the most rational and more in line with the symptoms present in this case. It could not well be malignant. Its duration, absence of pain and glandular enlargement, together with the excellent general condition of the patient emphasize the innocent nature of the growth, and I believe operation should be performed at once.



Dr. J. M. Ray: It seems to me that the starting point of the growth before us is in the frontal sinus. The history of the growth beginning at the upper and inner angle growing toward the outer corner, looks very much as though the origin was in this locality. Fatty tumors about the orbit are quite common, both congenital and otherwise. I have seen several such cases.

Dr. A. M. Vance: I do not think the growth before us is cyst; the contents seem to be semi-solid, and I believe it commenced in the orbit proper, from the history. I believe the orbit will be found to have melted away, also the bone above it has given way, allowing the tumor to grow upward. I do not see why it may not be malignant. I know that I have removed sarcomata from the heads of people who looked

just as healthy and in just as good condition as this man presents, which had been growing almost as long. I am inclined to think that this growth, if not originally malignant, is at present. I believe its contents are not fluid, but semi-solid. I certainly recommend its removal.

Dr. Roberts: I have very little to add in closing. There is some question in my mind whether it is a cystic tumor, or a myxo-sarcoma. I think it comes from the orbit, and I told this man when he came to my office to-day that I thought it would be advisable to first aspirate the growth to ascertain the nature of its contents. It does not make any difference what it is, I propose to remove it. Myxo-sarcoma is about the slowest in development of any of the sarcomatous growths. It is not improbable at all, I think, that this is a dermoid cyst. I think it began in the back of the orbit and did not show itself until after receipt of the last injury. I do not believe, however, the injury had any thing to do with its occurrence.

Dr. Roberts (A Large Sarcoma of Left Kidney in a Child Five Years Old; Nephrectomy; Recovery): The first of last December I was called to Shelbyville, Ky., to see a child who will be five years of age the coming April. The history of the case was about as follows: The mother stated that four weeks prior to my visit she noticed that the child's abdomen was much larger than it should be, and, examining it, she discovered a tumor considerably larger than a man's double fist. The child had never complained of any pain or discomfort. While running about, four days before my visit, the child had fallen flat on his face. He then complained a great deal about his abdomen, and was put to bed. At the time of my visit his temperature was 100° F. and had been so for three days. There was considerable pain and tenderness over the left lumbar region; the child was lying in bed with the legs drawn up. Upon palpation, it was questionable whether there was fluctuation or simply elasticity of the tumor. I suggested that we aspirate to see whether the growth contained any fluid; this was done at three different points, and nothing except a little blood secured. I then made the diagnosis of malignant disease of the left kidney. I made my diagnosis chiefly upon the tympanites along the region of the colon.

I did not see the child again until the latter part of December. At that time the tumor had grown considerably; it filled the whole left side of the abdomen down almost to Poupart's ligament, and extended over about two or three inches to the right of the median line. The

case was brought to this city for operation, and on January 17th, at the Norton Infirmary, assisted by Dr. Anderson and a number of other gentlemen, I made first a short exploratory incision—a perpendicular one—for the purpose of settling the diagnosis as to the organ involved; it proved to be the kidney, as I thought. The spleen was perfectly normal as to size, but was pushed up of course by the growth. In this exploratory incision there was an opening made in a little vein on the surface of the tumor which bled very freely, and it was with difficulty the hemorrhage was controlled. I had explained to the father before making the exploratory incision that if the tumor was found of such a character that it could not be removed without too great risk, the abdomen would be closed. When the bleeding occurred from the punctured vein I, with the father's consent, went ahead and removed the tumor.

I did the operation suggested by Abbe, whose paper I had a day or two before seen in the *Annals of Surgery*, which consists in opening the abdomen transversely instead of perpendicularly. The short incision made was about two inches, I suppose, to the outer border of the left rectus abdominis muscle. I then carried the other across the abdomen one inch below the ribs back to the lumbar region and across the outer border of the right rectus; that brought me down directly upon the growth. We found the descending colon so closely adherent that it was with some difficulty we were enabled to detach it. When we had dissected down to the pedicle of the tumor, the child seemed so nearly dead that I did not take time to pick out the ureter but tied off the body *en masse*. I found that the tumor grew from the fibrous covering of the kidney; only a portion of the kidney seemed to be involved in the growth; the kidney, however, was removed in its entirety, as I was afraid the other portion might be infiltrated and which could not be detected at the time. After removal of the growth the wound was closed by three lines of continued sutures; it had to be done very rapidly owing to the extreme condition of the patient. The peritoneum was brought together first, then the muscular structures, then the skin and fascia. The child was put to bed in almost a moribund condition; however he rallied and went along to recovery without an untoward symptom. He was discharged from the infirmary yesterday in good condition, with the wound healed. The tumor, which I exhibit for your inspection, was found to weigh immediately after its removal seven and a half pounds.

DISCUSSION.

Dr. Anderson: I think it was the most formidable surgery that I have ever witnessed. The transverse incision extended around almost to the spinous process of the dorsal vertebra, so that every thing was thoroughly laid open. The adhesions to the descending colon were very extensive; the tumor was also adherent to the peritoneum and had to be dissected off. The whole procedure required the most painstaking, careful surgical work that I have ever witnessed.

Dr. Rodman: This is the second case of nephrectomy Dr. Roberts has had. I assisted him in the first case several years ago. The incision suggested by Abbe is perhaps a very good one; it certainly affords greater access to the kidney than the ordinary incision in front, but it strikes me as being questionable whether this incision of Abbe is better than the older operation very much like it; that is, the operation of König, in which he begins posteriorly and cuts anteriorly. The only difference is that Abbe goes through the peritoneum, while König does not. König dissects up a large flap of the muscles, and when he comes to the peritoneum it is pushed forward toward the median line; in that way he removes the kidney without doing injury to the peritoneum. The disadvantage in either operation would be the great liability to ventral hernia. While the result in Dr. Roberts' case is very gratifying, so far as the primary results are concerned, I am very clear in my own mind, from statistics on the subject, that these operations are done more to show what can be done with the knife than for any real substantial good that comes to the patient. Gross and others have shown very clearly that the mortality of nephrectomies for malignant disease is frightful; in the lumbar operation about thirty per cent, in the abdominal operation about forty-five per cent. One reason why the abdominal is perhaps more fatal than the lumbar operation is that severe cases are operated upon by the anterior route; you can not remove as large a tumor by the posterior as by the anterior route. So, when you consider that the mortality in these cases is forty-five per cent; further, that no single case of cancer of the kidney has ever passed the three-years' limit after operation, and that very few sarcomas have passed this limit; that many of them die on the table, others dying a few months after the operation; again, the liability of ventral hernia occurring, it strikes me as being very questionable whether this operation ought to be done or not.

Dr. H. H. Grant: I agree in the main with what Dr. Rodman has said in reference to operations for the condition under discussion, but in this case it appears that great benefit has been done to the child by the operation, and its life is probably prolonged. If this tumor is really a sarcoma, it is barely possible that the child will entirely recover, although, as Dr. Rodman says, these operations have not been done very frequently for sarcoma. I believe it is possible in some cases to cure sarcoma of the kidney by complete removal. Several cases are recorded of the prolongation of life and addition of comfort after such steps. And it is not impossible that extirpation of sarcoma may prove successful occasionally in this as in other situations.

Dr. Roberts: As Dr. Rodman says, this is the second case I have operated upon for malignant disease of the kidney, the first one being in 1885. This patient was referred to me by Dr. Anderson; there was recurrence of the trouble and the patient died inside of three months. However, there was prompt recovery from the immediate effects of the operation. Regarding the mortality in these cases, statistics show that about fifty per cent, according to Abbe, die from the immediate effects of the operation. I think Keys reports a case that lived four years after operation.

Concerning drainage, I will state in this case drainage was made from the posterior angle of the wound with strips of iodoform gauze put down to the bottom of the wound which drained very satisfactorily. This was removed at the end of forty-eight hours, and another small piece introduced which remained until the second dressing, then no further drainage was made.

The advantage of incision at the outer border of the rectus muscle (Langenbeck's) over the one in the median line is, that you go through the outer layer of the mesocolon and avoid the vessels lying in the inner layer, and hence avoid the danger of sloughing of the gut. In the operation I performed in the case just reported there were no vessels to be tied. I believe that we can better get at the pedicle by the method pursued in this case than any of the others. In my first operation for malignant disease of the kidney I followed Langenbeck's method, which is rather more tedious.

Dr. Rodman (Septic Pneumonia Resulting in Gangrene): On December 15, 1893, Mr. E. H., aged twenty-eight years, while working on the Louisville and Jeffersonville bridge, fell with a span of the bridge a dis-

taunce of rather more than one hundred feet. He was not able to say whether he was struck by any timbers or iron in falling. He received a fracture of the fifth, sixth, and seventh ribs of the left side. The shock was quite profound, but he recovered from it with reasonable promptness. It was noticed at once that one of the ribs must have penetrated the lung, as he spat blood copiously with each expectoration, and air could be felt in the cellular tissue over the fracture. This became more marked during the day until the whole side of the chest was quite distended with air, which also passed down the left side of the body; the scrotum was especially distended, being as large as a child's head. He got along very well for three days, never having a decided rise of temperature, suffering only at times from short, painful paroxysms of coughing. On the fifth day there was an elevation of temperature, it reaching a point as high as 104° F. That was the beginning of a severe case of traumatic pneumonia, which was, of course, septic in its nature. The left lung was solid from apex to base. He had a hard time getting over the pneumonia, but on the fourteenth or fifteenth day he showed symptoms of improvement; the temperature remained very high, hardly ever less than 104° F.; there was no effusion in the pleural cavity.

On the sixteenth day his temperature dropped somewhat, and he commenced expectorating a great amount of very offensive matter. It was so extremely offensive that it made all the nurses and patients sick. It was necessary to keep all the windows open, although the weather was quite cold. There was evidently gangrene of the lung; he soon went into a condition of profound sepsis, and I had very little doubt but that he would die. While the temperature was low he had at all times a very copious sweat; the pulse became very frequent, 130 to 140; the skin had that peculiar muddy appearance of sepsis, and he was in a very critical condition.

A consultation having been held, it was thought advisable to resect his rib, and to see if we could not find the original opening in the lung, and following that as a guide open up the abscess in the gangrenous part of the lung. This was done, I think, about the twentieth day after the accident. The sixth rib was resected, a piece four inches in length being removed. I used the Rongier forceps, which, by the way, I shall always use hereafter, as I consider it the best instrument for the purpose. Pus was encountered as soon as the rib was cut; the original opening in the lung was easily detected, and a large abscess was found

in the gangrenous portion of the lung. The lung was packed with several yards of gauze in strips, and the man's recovery has been very gratifying indeed. He was better the day after the operation, and has improved steadily ever since. The abscess was in the upper lobe of the left lung. He spat up the foul stuff for a week after the operation, some of it drained out through the incision, and for the last month he has seemed to be perfectly well. He is able to walk about the infirmary, is gaining flesh and strength, and altogether his convalescence has been very satisfactory.

DISCUSSION.

Dr. Anderson: I was very much interested in Dr. Rodman's report. As we understand pneumonia, I have been under the impression that such a thing as traumatic pneumonia was impossible. We may have an abscess or inflammatory process involving the lung, but a veritable traumatic pneumonia, as we understand pneumonia, is hardly admissible. Of course the treatment in these cases is plainly indicated, as soon as the abscess is detected, to practice external drainage.

In this connection I wish to claim priority in the matter of practicing external drainage in pneumonia, as I believe I was the first to attempt such a procedure in this part of the country. The case was one of ordinary pneumonia, which terminated in gangrene of the lung; it was a severe case in which I aspirated the lung, then enlarged the opening and practiced external drainage between the ribs. The rib was not resected, and I believe that in many of these cases free drainage may be obtained without removing a portion of the rib by making an opening in the intercostal space and inserting a drainage-tube.

Dr. T. S. Bullock (visiting): I have seen with Dr. Anderson two cases similar to the one under discussion, where recovery followed very promptly. In the first case, after aspirating, a drainage-tube was passed through the intercostal space and thorough drainage established in that way. In the other case he did a resection of the rib, and recovery followed promptly. I must say that I never saw such an amount of pus escape from any cavity as was discharged in the last case.

Dr. James S. Chenoweth: I was present when Dr. Rodman operated upon the case referred to. While the patient did spit up a large quantity of very offensive stuff, I was particularly struck with the small amount of pus liberated at the operation. I was rather impressed that there might possibly be a collection of pus which was not reached; however, the patient was very promptly relieved, and it is evident all the pus was removed.

Dr. J. G. Cecil: I want to ask one question in reference to puncture of the lung by a fractured rib. As I understood the reporter, it was evident from the beginning, from the symptoms already detailed, that the rib had been fractured, and that it had wounded the lung. Would it not have been good surgery, therefore, to have made an incision in the region of the fracture as soon as the man recovered from the shock of the accident, and searched for the rib which probably projected into the lung? It occurs to me that this would have been good surgery, and might have prevented after-trouble, such as Dr. Rodman has described.

Dr. Rodman: I am glad Dr. Cecil has brought up the question of early operation in these cases, and the point he makes is an excellent one. I was tempted to make an opening in this case the second day after the injury. I went over all the literature of the subject very carefully and could find nothing to warrant me in such a course. The books simply state, "In case of depressed ribs, where you are satisfied the lung has been injured, the proper procedure is to take a blunt hook and go down into the rib and aim to pull it up in that way." I did not believe any good would come from such a procedure, so did not attempt it. In the next case of the kind I have I shall not hesitate to do as Dr. Cecil suggests; certainly it is the proper procedure in such cases, and there is no danger in removing a piece of the rib when it is already, as in this case, a compound fracture.

In regard to the point made by Dr. Anderson, I am perfectly familiar with the fact that the larger majority of medical writers say that we do not have traumatic pneumonia. I do not mean to say that in these cases we have the pneumococcus, but I do say that this man's lung was solid from apex to base. Another man hurt the same day, who is still in the ward, had the same kind of an injury, although he has not had emphysema, and the lung did not become gangrenous, but it was solid from top to bottom, evidently aseptic pneumonia. I am thoroughly convinced that any man examining the two patients would have pronounced one lung of each perfectly solid from top to bottom; whether it was pneumonia or not you can decide for yourselves; each had the rust-colored sputum, the characteristic respiration, pulse, and temperature of pneumonia, and neither at any time had any fluid in the pleural cavity.

The onset was by a chill, and the termination sudden, as usually seen in croupous pneumonia, manifested by sudden dropping of temperature, free action from skin, kidneys, etc.

Dr. Roberts: It is not unusual to have an injury of the lung and fracture of the rib without an abscess. Dr. Chenoweth will remember a case that we exhibited before the class at the University not long ago, where the man had a fracture of the second rib with emphysema. The man recovered without the slightest trouble and without operation. I do not think it advisable to do this operation in fracture of the rib until there is evidence of suppuration.

Dr. I. N. Bloom (Urethritis; Simple and Specific): I have recently had two or three cases which have furnished considerable food for reflection. They were all cases of urethritis. It is now a generally accepted fact among those who are supposed to know that urethritis is divided into three classes:

1. Traumatic urethritis.
2. Urethritis simplex.
3. Urethritis specific.

A man having gonorrhea is subjected to specific urethritis, which is brought about by the specific germ, the gonococcus of Neiser, carried from one subject to another, and by its development produces the disease. While there have been some differences of opinion in regard to the causation of gonorrhea, the above is the most generally accepted theory. I am not prepared to dispute this, but two cases I wish to report have at least been food for reflection for me for some time, and I propose to give the cases first, then draw my deductions therefrom, or leave the members of the Society to draw theirs.

The first case came under my observation about a year and a half ago. A man who had been married about ten years contracted gonorrhea, at least gonorrhea was the diagnosis given by his physician. The following are the particulars: The man had been on a spree, and had indulged in one sexual intercourse away from his wife. Two or three days after this, having no symptoms of any kind, he had connection with his wife. About a day following this coitus he noticed a slight discharge from his penis, and consulted me. The flow when I saw it was mucoid, scarcely muco-purulent in character, about the color and consistency of glycerine. Urination on the part of the patient was painless, and there was little or no inflammation around the meatus. At the end of four or five days of ordinary treatment there was no discharge at all from the penis or in the urine; in the mean time, however, for one or two days the flow became more purulent in character,

but principally mucoid, and remained that way until probably the end of five days, when it ceased altogether. He had not practiced coitus with his wife from the time he first consulted me, and she subsequently developed undoubted gonorrhea, which lasted four or five weeks, severe in character, with urethritis, vaginitis, and pelvic peritonitis, characterized by the usual symptoms and usual amount of severe pain. Previous to the time this man first consulted me he had had no signs of gonorrhea for ten years.

The other case (rather there are two of them which are practically alike, one of which I followed very closely, having had a microscopical examination of the discharge made by Dr. Vissman) occurred in a young man, twenty-six years of age, who came to me about a year and a half ago for a syphilitic affection which was then about two years old. About the same time he told me of a gonorrheal discharge he had, which came on at intervals; sometimes for a week or two it would remain quiet, then become varied in form from a thin, gleety, mucous discharge to (at times) a decidedly purulent flow. In the course of treatment for syphilis I saw the patient quite frequently, and he paid little or no attention to this discharge; in fact the urethral discharge was only mentioned occasionally and received no direct or thorough treatment. The patient seemed disinclined to it; would not use injections nor internal medicines faithfully, and would not limit his desires or the gratification of them.

In June the man fell in love and began to think seriously of marriage. In the mean time three years had elapsed since the development of syphilitic manifestations, to which he had attended fairly faithfully as a man can do by getting a month's supply of medicine and taking it regularly. His gonorrhea, from his failure to give the treatment of it proper attention, had become chronic. About the last of July, when he consulted me as to the possibility of marriage, I told him that so far as syphilis was concerned there was no reason why he should not marry, but so long as there was the slightest discharge from the urethra this feature would debar his union. Proper treatment was then instituted and carried out rather more earnestly by the patient. In August there was some improvement, and he was still more anxious to get married. I suggested to him the advisability of having a microscopical examination made, and he was accordingly sent to Dr. Vissman, with instructions to take a sample of urethral discharge when he had not cleaned out the urethra for several hours so that the discharge could be exam-

ined. This was done, and at my request Dr. Vissman made a very careful examination, and made the following report, that while there was possibly very little danger, a few gonococci were still present, and he did not think immediate marriage was advisable, as he did not consider it safe to take the risk. We then worked even more vigorously in the matter of treatment, and by the middle of September for a week or ten days there had been no discharge. The treatment was continued, and at the end of September there was still no flow. By the first of October almost a month had elapsed without the slightest sign of gonorrhea; the mucous shreds had disappeared from his urine as thoroughly as they ever disappear in any one who has had gonorrhea within five years. By a most careful examination the faintest traces of mucous shreds could be seen in the urine, but there was not the slightest evidence of discharge from the urethra, and there was nothing to examine under the microscope. I then gave it as my opinion that there was very little danger from his marrying; he was apparently in the best of health; he had been examined repeatedly for stricture, which so often follows gonorrhea, but nothing of this kind could be found, and there was no trace of the previous chronic gonorrheal infection.

The man married early in October, and (of course) pursued the usual course in those cases. November passed, and late in December he came to me stating that his wife had been complaining, and told me the nature of her symptoms. He said that she had only been complaining for a few days. He very wisely thought an examination should be made at once, and for this purpose his wife was brought to my office. Upon examination I found that she was suffering from undoubted gonorrhea; she had urethritis, vaginitis, and considerable pain in one side, with slight pelvic peritonitis. She has been under treatment since that time; she still has vaginitis, but no urethritis, and the urine has become normal. There are still some evidences of pelvic trouble in the left side.

I cite these two cases for the following purposes: In the first place we have been taught that specific urethritis runs a certain course. It has probably not been the experience of any one here to take a case of undoubted specific (so-called) gonorrhea, such as was present in the first case, and cure it in four or five days. I remember once of having a case where I thought I was producing a remarkable result in curing a gonorrheal discharge in eleven days with resorcin. With that exception I can remember no case of specific gonorrhea that was cured inside

of three to four weeks. Now, that being the case, the question is did this man (unfortunately we did not have the secretions examined) have a specific gonorrhea, if so, then it was cured in four or five days by remedies that have not been certain to effect a cure heretofore inside of twenty-eight days. If he did not have specific gonorrhea, how could he have given his wife gonorrhea? It is fair to assume that this man has had intercourse with his wife quite a number of times since she has gotten better, and he has not developed any form of gonorrhea.

In the second case the man had no discharge whatsoever from the urethra for several months previous to marriage, and has had none up to this time, and yet his wife developed an undoubted case of gonorrhea so far as all symptoms are concerned, because there is no form of simple vaginitis which will result in urethritis and pelvic peritonitis. I never had this woman's secretions microscopically examined.

DISCUSSION.

Dr. Grant: I do not speak of these cases from a specialist's standpoint, but it occurs to me that both cases Dr. Bloom describes may be easily explained. In the first case, I believe that his patient most certainly had simple urethritis, and it is entirely possible for simple urethritis to have produced this irritation in the woman. I am sure that I have seen a number of cases of urethritis which were simple in the male, certainly cases in which there were no gonococci present, perhaps in many instances there was certain irritation, the result of old strictures producing long-standing trouble, that infected the wife afterward; and while I believe, as Dr. Bloom states, that it is not possible to bring about a cure of gonorrhea in four or five days, yet I do think it possible for simple urethritis to get well in that length of time to all appearances, and yet afterward cause vaginitis, urethritis, etc., in the female.

Referring to his second case, a great many cases of gonorrhea are supposed to be cured, while there still remains in the glands, far back in the prostatic portion of the urethra, a quantity of the gonococci, which are not in active, irritative, and aggressive condition, yet they are present, and may become dislodged and pass out with the urine or with the semen in sexual intercourse, and in the latter case they are ejected into the female vagina and may be productive of serious trouble. I think there is almost no question about this being the course of infection in the second case reported by Dr. Bloom, and I can see no other rational explanation of the first one. I am sure Dr. Bloom will say

without hesitation that a very large number of cases of gonorrhea are apparently cured, still there may be retained somewhere, either in the epithelial covering of the urethra or in some of the glands or pockets far back, germs able to cause gonorrhea for a very considerable length of time even after all manifestations have apparently been cured, and this too without there being any particular irritation in the male, or at least any irritation that he is able to define as a result of the urethritis.

Dr. Cecil: We know it to be a fact that gonorrhea may exist for a long time in the genital passages of women, in the glands of Bartholini, in the cervix, in the posterior vaginal fornix, and in many places almost inaccessible, which generally are overlooked or neglected in any method of treatment that is adopted. The question as to how long gonorrhea may exist either in the male or female, and how long it may possibly be communicated, is one to which I have never been able to give any satisfactory answer.

I can hardly agree with Dr. Grant that simple vaginitis will show up in as virulent a form as indicated in the case reported by Dr. Bloom. We may have simple vaginitis occasionally, but I have never seen it involve the urethra to any extent. I have seldom seen it extend to the pelvic region and involve the tubes; in fact, I hardly think it is probable that simple vaginitis will ever result in these complications. I am free to say that I can not understand how the first case described by Dr. Bloom could have originated. The second case, especially in its relation to the time when it is advisable for persons to marry after having had gonorrhea, strikes me as being one of very great moment, because of the prevalence of gonorrhea among young men, and especially since we know the wonderful number of diseases in the female that result from so-called cured gonorrhea. I had a case in mind, at the time Dr. Bloom was speaking, of a gentleman whose wife had been suffering from some womb trouble, who had of necessity to live apart from his wife, and had indulged his fancy outside, contracting gonorrhea. He came to me for treatment, while his wife was going to another physician for treatment. I persisted with and urged upon him the necessity of complete cure before he again went to stay with his wife, and thought that I had accomplished this, and he thought so too. Every symptom had disappeared, and he went so far as to make a crucial test by going outside again and trying it on somebody else, and utterly failed in his attempt to communicate the disease. Three or four weeks after all symptoms had subsided he communicated gonorrhea to his wife.

It is a question that it seems to me ought to be settled in some definite way if possible, because of its importance. Of course no man wants to communicate gonorrhea to his wife, whether she be newly married or otherwise, and especially since we know that so many pelvic diseases, which require extensive operative procedure to relieve, are due to gonorrhea, it seems to me the question ought to be discussed and settled. I am sorry that I have not something definite to offer, but it seems to me that Dr. Bloom, in the cases he reports, did follow out every possible precaution that even the most exacting of us could have asked, and yet his cases went wrong. The question will come up to all of us, when can a man marry, after he has had gonorrhea, with safety? When should he be allowed to marry? The question becomes one of the greatest gravity, and should receive our careful consideration.

Dr. Bloom: My object in citing these two cases was to get the different opinions on the subject. I am fully cognizant of the experiments and tests that have been made as to the cause of gonorrhea, and as yet I am not satisfied and not prepared to state that the germ of Neisser is not the specific germ of gonorrhea; on the other hand, I am also not prepared to state positively that it is the essential germ which produces gonorrhea.

As regards the first case, Dr. Cecil has answered Dr. Grant exactly as I should have done. I do not believe simple urethritis could possibly produce the symptoms which were seen by one of the physicians present, who was called in consultation when peritonitis developed.

In the second case, the man married early in October, and had intercourse with his wife during October, November, and a part of December before she developed any symptoms of gonorrhea, and the strangest feature is, without a single symptom developing in himself. It is natural to suppose any latent urethritis that might exist would be aggravated by sexual congress the first few weeks of marriage, and be at once communicated; I believe that is the usual history of these cases. However, in this case nothing developed in the wife until fully two months after marriage. Some writers claim that a man may be absolutely free from all symptoms for a year, and then communicate gonorrhea. Further, do not some authorities recommend marriage for the cure of so-called gleet discharges in the male, and have not cures resulted in some cases without any trouble developing subsequently in the female? Yet here is a case where exactly the opposite condition exists; there was absolutely no sign of urethral discharge for several

weeks before marriage, all evidences of gonorrhea having disappeared, yet the wife became infected. We could all cite cases where a discharge was still present, the patient married, became well, and the wife was not infected. I do not believe that the gonococci can exist in any part of the urethra for a long time sufficiently active to give a specific gonorrhea to any one without causing trouble, and specific trouble at that, in the patient himself. Furthermore, if they did exist in the urethra, I believe evidences of their presence could be detected in the urine. If they existed and remained in the urethra, they could not be active and could not be made to be active, and in order to be conducted with the semen and not to flow from the urethra they would have to be present in some quantity, and serious inflammation would be likely to result therefrom.

In regard to the specificity of the bacillus of Neisser, I do not think it has been fully established, clinically at least.

Dr. Grant: In the present history of diseases of women, am I not correct in saying that there are certain authorities who maintain that no woman ever marries a man who has had gonorrhea but suffers in some way from the effect of that gonorrhea? There is abundant authority in every surgical journal of the land, and in nearly every surgical book to support the statement I made, that gonorrhea is not by any means cured when the discharge ceases, and that in many instances the disease remains latent for a very considerable time. Therefore, if it be true, as maintained, that any woman who marries a man who has had gonorrhea invariably suffers from its effects, it would seem to me that if a man marries a woman within a period of two or three years after he has apparently recovered from an attack of gonorrhea, it is perfectly possible for the gonococci to produce such effects as Dr. Bloom has described.

The question as to when it is safe for a man to marry after having apparently recovered from an attack of gonorrhea is one of the greatest importance, and one which in my opinion is far from being satisfactorily settled.

JAMES S. CHENOWETH, M. D., *Secretary.*

Foreign Correspondence.

MEXICAN LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The preliminary training that the Mexican student receives in the lyceums, prior to his entrance into the medical school proper, is calculated to make him a better qualified matriculant than a large per cent of the same class upon this side of the Rio Grande, and the thoroughness with which he is drilled in medicine can scarcely fail to make him an efficient member, at least so far as the theoretical side of his calling is concerned.

The work in pathology of the Mexican practitioner is said to be very thorough, and as regards his carefulness in the methods of diagnosis there can be no room for any but the most favorable criticism. When it comes, however, to the selection of the line of treatment, and more especially the carrying out of the adopted course, there is somewhat of a contrast between this, the practical side, and the other or theoretical half of his work. The contrast is most emphatic whenever the treatment involves a surgical measure, for, with all due deference, there is no denying that Mexican surgery, taken as a whole, is far behind the times.

The laity seem to have an unusual dread for any surgical measure, and their indifference seems to indicate that they have never been taught the first lesson toward appreciating the benefits of modern surgery. The noticeable evidence of the unprogressive state in this direction is nowhere more apparent than in the operating-rooms themselves. Take one of the very best in the city of Mexico, which is the center for the whole, and there is nothing about it to indicate that in its construction any regard was attached to its illumination, its ventilation, its convenience, or the facility for rendering it aseptic, that is, so far as that term can be applied to a room; and the average one is nothing more than a fairly lighted room in a building that was formerly occupied as a convent.

In their operations there is a peculiarity about their manner as compared with work elsewhere, which would be difficult to describe in any but the imperfect way of calling it Mexican, a term that can be appreciated by contact alone.

As for medical schools, there are, so far as we have been able to learn, but two in actual existence, the one at Guadalajara and the National School at the city of Mexico. Others exist, or are said to exist, but in name only, at Puebla, Morelia, and another at Monterey, the actual existence of which we are uncertain. The prescribed courses of lectures consist of from five to six terms of about nine months each. During this period the

student is carried through didactic, practical, and hospital courses. The text-books are all of the French authors, and are used in the untranslated state. There is no reason why there should not be some thorough schools in Mexico; certainly in some respects they are in better position to impart learning than the average school in the United States. The advantage we principally refer to are the clinics; in this particular the two schools already mentioned are amply supplied. But it is very doubtful whether the immense amount of clinical material is handled in a way that is calculated to yield the best advantage, for operative work does not have the same attraction for the Mexican that it has for the American, and, as for internal medicine, the hospital wards are not inclined to impress one with any great amount of enthusiasm in this direction.

A few words, however, upon the National School will give a clearer and more accurate idea of the Mexican style of teaching, since in size and facilities this one is far in advance to the other located at Guadalajara. The faculty of the National School, including professors and adjuncts, consists of forty men. Their course consists of five terms of about nine months each, and is divided as already mentioned.

As for the teaching facilities, it is very doubtful if any place could be found with better advantages than this, for the clinics, not only in point of number but also in variety, are next to inexhaustible. The *peons*, or poorer class, being so largely in the majority that the hospitals are kept in a continually crowded condition. These hospitals not only furnish the clinic, but keep an ample supply of anatomical constantly at the disposal of the school. The matriculants of the present session of the National School number about four hundred; as for the number of matriculants in the Guadalajara School we are unable to say.

AUG. SCHACHNER, M. D.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The Nurses' Pension Fund; The Oldest Freemason in the World; A New Departure; Death of a Coroner; The Heredity of Drink; A Successful Operation; The Detection of Criminals; A New Masonic Lodge; In Favor of Vaccination; Dinner of the Medical Society of London, etc.

The Royal National Pension Fund for Nurses, which started with a donation of £20,000 contributed by four public-spirited merchants of the city of London, has accumulated a sum of nearly £170,000, and has an annual budget from nurses' payments and invested moneys of over £30,000. Last year nearly £600 was distributed in sick pay. The sum of £5,800 has been set aside to increase the annuities of "the first thousand nurses" as they become due. At the annual meeting it was stated that the whole undertaking had been a great success.

Mr. W. R. Salmon, the oldest member of the Royal College of Surgeons, and stated to be the oldest Freemason in the world, has just completed his one hundred and fourth year.

A proposal has been set on foot to establish a woman's branch of the Volunteer Medical Staff Corps. The circular asking for recruits suggests that the improvements in the education and physical training of women render them capable of performing public duties. At the preliminary meeting about sixty persons assembled, many of them being quite young girls; there were about a dozen males present, some of whom wore the uniform of the Medical Staff Corps. It was stated that the uniform which the women's corps will adopt has not yet been finally settled on. The honorary secretary and treasurer, Miss Ethel Stokes, who initiated the idea, said, If there were not to be found a few hundreds of women in England willing to arm and drill for their country's aid and defense, then indeed politicians might well jeer at their sex's claim for political suffrage. She also suggested that the women's corps would include a preliminary course of musketry exercise, company and squad drill. Unlike nursing sisters, such a corps would be able to go into action and take care of themselves, just as any similar body of troops might do. An army surgeon who attended the meeting threw a certain amount of cold water on the proceedings by narrating how during battle wounded soldiers had to be attended to, placed on stretchers and borne to the ambulance. The work was not always in snug hospitals, but was often accompanied by long and tiring marches and indifferent food. Possibly two of the female stretcher-bearers might suddenly be ordered to pick up a big wounded guardsman and carry him off the field. A lady present thought perhaps if the stretchers were modified it could be done, but no modification was suggested in the guardsman. Ultimately the meeting separated without coming to a definite conclusion.

The death is announced of Dr. Roderick Macdonald, coroner for North-east London and late M. P. for Rosshire. The deceased had been ill for some four months. He was born in the Island of Skye, became a tutor, and subsequently studied for the medical profession at Edinburgh, where he took his degree as M. D. At the last general election he did not seek re-election.

A distinguished specialist in children's diseases has carefully noted the difference between twelve families of drinkers and twelve families of temperate ones during a period of twelve years, with the result that he found the twelve drinking families produced in those years 57 children, while the temperates were accountable for 61. Of the drinkers 25 children died in the first week of life, as against 6 on the other side. The latter deaths were from weakness, while the former were attributable to weakness, convulsive attacks, or to edema of the brain and membranes. To this cheerful record is added five who were idiots, five so stunted in growth as to be really dwarfs, five when older became epileptics, one, a boy, had grave chorea ending in idiocy, five more were diseased and deformed, and two of

the epileptics became by inheritance drinkers. Ten, therefore, of this fifty-seven, only showed during life normal disposition and development of body and mind. On the parts of the temperates, as before stated, five died in the first weeks of weakness, while four in later years of childhood had curable nervous diseases. Two only showed inherited nervous defects. Thus fifty were normal, in every way sound in body and mind.

Mr. C. B. Lockwood, of St. Bartholomew's Hospital, has recently had a successful case of resection and immediate suture of intestine which had been strangulated eighty-one hours. The patient, a boy aged seventeen, was seized suddenly with symptoms of acute intestinal obstruction, due to strangulated inguinal hernia. Taxis was unsuccessfully tried, and Dr. Lockwood performed kelotomy eighty-one hours after strangulation had first set in. The affected intestine was found to be tough and macerated, highly engorged and infiltrated with blood, and there was gangrenous perforation at the seat of constriction. Four inches of the gut was cut away, and the ends united by Czerny-Lembert's method, and the wound drained and closed. The patient made an uninterrupted recovery. During the operation care was taken to avoid death from shock by the cessation of the anesthetic, the application of warmth and stimulants, the disinfection of the sac, and protection of the peritoneum from infection. Mr. Lockwood laid great stress upon the fact that there was no intestinal paralysis at the time of operating. Out of forty-four cases of primary artificial anus at St. Bartholomew's Hospital only four have recovered.

Members of the medical profession in London have had a Royal Arch Masonic Chapter consecrated for the convenience of their own profession, and all its members are to be drawn from that source. It is appropriately named "The Æsculapian Chapter," and is attached to a lodge of the same name established three years ago.

Some time ago a small committee was appointed to inquire into the best means available for identifying habitual criminals. The members of the committee had the advantage of inspecting M. Bertillon's methods of "anthropometry" in Paris, and while they speak in warm praise of its efficacy, it is pointed out that it can not in its entirety be introduced into England, because of difference of judicial procedure. The length and width of the head and right ear are important points in the French system. M. Bertillon classifies mankind into "long heads," "medium length heads," and "short heads." The committee report that the present English system is fairly effective, but recommend that the methods now in use should be supplemented by others taken partly from M. Bertillon and partly from Mr. Galton's system of reading the impressions of the finger tips. The committee accept Mr. Galton's theory, that if two finger-tip prints are compared and are found to coincide exactly, it is practically certain that they are prints of the same finger of the same person, because the chance of two finger prints being identical is less than one in sixty-four thousand millions. The measurements advised to be taken are length and width of head, length

of left middle finger, of left forearm, and of left foot, as well as the prisoner's height. The impressions of the ten finger tips are also to be taken.

A large railway company has supplied the information that out of 30,000 men employed by the company all but 2,000 were re-vaccinated. Among the 28,000 there occurred 3 cases of smallpox, as against 6 among the 2,000 unvaccinated men.

The anniversary dinner of the Medical Society of London passed off in a most pleasant manner. One hundred and twenty Fellows attended, Mr. A. E. Durham in the chair, who gave the toast of the evening, "The Medical Society of London," showing it was the one hundred and twenty-first anniversary, and how well the objects of the founders, namely, the cultivation of medical science and the promotion of good fellowship between the members of the profession, had always been brought about. The new president, Dr. Bristowe, was, to every one's regret, unable to be present on account of ill health, but a letter was received from him during the evening saying he was better and hoped soon to be about again.

The Dublin medical students have presented a statement of grievances to the President and Council of the Royal College of Surgeons of Ireland. It is signed by some three hundred students.

LONDON, March, 1894.

Diseases of the Chest.

Under the Charge of Ewing Marshall, M. D.

PRETUBERCULAR CONDITION.—What is it? Do we understand it as a necessary condition before tuberculosis actually is present? Is it simply a diathesis? the condition that is inherited in the subject having a family history of tuberculosis and an identical condition that must must be acquired by an individual that is free from the hereditary taint before he can be the subject of tuberculosis? or is it the first stage of tuberculosis and a true integral part of the disease—in other words, is it the first stage of the tuberculous cachexia? Recognizing such a condition, whether we class it as a diathesis or a cachexia, we immediately begin to question the relationship between, in the first place, this condition and a similar condition in the patient inheriting syphilis or the rheumatic taint, and in the second place what part shall we credit to Koch's bacillus as playing in the pathology of tuberculosis.

Hereditary and acquired taints are spoken of by teachers and students of medicine in a familiar way, as if they were definite and tangible conditions. We understand, when an attack of rheumatism is present, that we find an hyperacidic condition variously credited to different acids, and that this condition is relieved by an alkaline treatment, but there is a condition

present, both before the onset and after the departure of the hyperacidity, that predisposes to rheumatism.

We find in the subject possessed of latent syphilis no outward sign that points to his being the possessor of this terrible disease. It may be months and even years after the primary lesion before tertiary devastation begins. Has there been a syphilitic germ, if there is such, present during all this period, lying in a dormant condition, waiting for some influence outside itself to make it multiply and its virility to increase?

The more we think of these three conditions and study them the clearer will become our understanding of the relation between tuberculosis and the bacillus tuberculosis of Koch.

WHAT CASES SHALL WE SEND TO COLORADO?—Dr. J. N. Hall (Texas Sanatarian): As this is quite a fair though slightly biased statement of the indications pointing to the high altitudes of Colorado, it is deemed worthy of an extensive *resumé*.

1. *Phthisis*. (a) The great benefit is obtained only when sent in the incipient stage. (b) Those cases in which digestion is fair do the best. (c) Little advantage to fibroid phthisis.

2. *Acute Pneumonia*. Do badly if sent before resolution has occurred.

3. *Emphysema*. Is generally contra-indicative of heights in general, and Colorado is no exception.

4. *Chronic Bronchitis*. Especially when bronchorrhea is present does splendidly.

5. *Dyspnea*. Generally speaking this symptom is really intensified by high altitudes anywhere.

6. *Pleurisy*. Cases requiring tapping so commonly show tubercular trouble that they had better be sent as early as possible after the tapping, as prophylactic measure.

7. *Asthmatics*. Advantages to these patients as a class very questionable.

8. *Disease of Circulatory Apparatus*. High altitudes is a menace to all such subjects.

9. *Chronic Malaria*. These cases do well, as they will in any non-malarial climate.

10. *Gynecological and nervous cases*. No advantage to these.

SO-CALLED HEART TONICS.—As a general rule digitalis is much more reliable and generally productive of good when indicated than any of the substitutes for it. Such is the opinion of the editor of this department, and it is very pleasant to note that Dr. Augustus A. Eshner, in a clinical lecture at the Philadelphia Polyclinic, states the following as a clinical experience: "After having continued the digitalis for two weeks, tincture of strophanthus in ten-drop doses was substituted, the administration likewise being continued for a period of about two weeks. With this alteration the treatment has thus been kept up for these three months and more, *the girl always doing best, however, while under the influence of digitalis.*" [Italics ours.]

Dr. Dacosta closes an article in the *American Journal of Medical Sciences*, April, 1894, with the following paragraph:

"Of so-called heart tonics digitalis is the best, but it is not the certain remedy we might suppose. It is on the whole best adapted to the cases with muscle weakness. Where we give it in large doses the patient should be kept in bed."

In a number of instances it does not suit at all. *Strophanthus* is generally said to be inferior to digitalis. I have used most of the other remedies of this class in different cases. Adonidin and chloride of basium have done me at times good service; cactus and convallaria have been disappointing. The latter I have ceased to use. Caffeine and cocaine are both valuable, but their action can not be kept up; from cocaine we would run the risk of establishing the cocaine habit. It is, however, very serviceable during urgent symptoms of failing heart. Nitroglycerine is not of much avail, except there be cardiac pain, or in combination with remedies like digitalis, which act more distinctly on the force of the heart. Bromides, valerian, and opium ought to be left to meet special indications of nervous disturbance.

A NEW METHOD OF THERAPY IN PULMONARY TUBERCULOSIS.—Dr. G. M. Carasso, Genoa (*American Medico-Surgical Bulletin*, February 15, 1894). The author, encouraged by a large amount of scientific research which demonstrated the bactericidal action of mentha piperita, and also by the favorable results obtained by L. Braddon (*London Lancet*, March, 1888,) by means of inhalations of the same in various cases of pulmonary tuberculosis, in one of which a disappearance of the bacilli and all physical signs of lung affections followed, has for the past five years made use of a method of treatment which is attended with favorable results. It consists of the continued inhalation of mentha piperita combined with the internal administration of an alcoholic solution of creosotum fagi with glycerine and chloroform, to which is added one per cent of mentha piperita. The method was attended by the most brilliant results.

In all stages and in every single instance the Koch bacilli disappeared from the expectoration between a minimum of thirteen and a maximum of sixty days. Following this, the cough and expectoration visibly diminished, night-sweats disappeared, nutrition rapidly improved, and gradually the normal resonance returned to the affected part of the lung, and the vesicular murmur reappeared. Thirty-nine cases in every stage of pulmonary tuberculosis yielded these remarkable results without a failure.

CARDIAC MURMUR IN THE PYREXIA OF CHILDREN.—(Sir Benjamin Ward Richardson, *Asclepiad*, 3d quarter, 1893.) Dr. Richardson calls attention to a musical murmur heard in children suffering from inflammatory or epidemic disease. He thinks it is due to the tension of the valves and the quickened cardiac movement. [Is it not our old friend "Hæmic Murmur" under a new name?—ED.]

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SURGERY OF THE BRAIN.

Since McDowell made bold to enter the abdominal cavity, surgeons have not scrupled to push into any region where there was reasonable ground to believe that disease might be relieved by surgical means. In this pioneer work the thorax, the spinal canal, and the cranium have all been successfully invaded, and the results have shown not only a wonderful tolerance of vital organs to surgical handling, but the discovery that many serious abnormal conditions, hitherto necessarily fatal, may be relieved by the surgeon's art.

Tumors have been successfully removed from the spinal cord and brain substance, abscesses have been opened in the brain, and tapping through the fontanelle for relief of hydrocephalus has been proved to be a sound surgical procedure. Tapping the overdilated ventricles of the brain for acute serous effusion, though a measure which has long seemed to be surgically feasible to us, we supposed had never been attempted until we stumbled on the following in the Philadelphia Medical News of the 14th ultimo. It is a condensation of a paper in the Annals of Surgery, for April, by "Dr. Frank, of Chicago, who reports two interesting cases of his own, in which the results obtained were sufficiently marked to justify the operation, although both patients

died. One was a case of acute hydrops ventriculi resulting from severe injury to the head with multiple fractures of the base, which were made out *post-mortem* only. After trephining, the ventricle was opened by an aspirating needle corresponding to a No. 3 catheter (American scale), and about three ounces of fluid withdrawn. There was considerable relief from the pressure symptoms. The second case was one of idiocy following hydrops ventriculorum due to cerebro-spinal meningitis. After reviewing the history of this radical though rational procedure, and discussing the surgical ease and safety with which it can be done, he draws the following conclusions, which are of interest":

Trephining and tapping the lateral ventricles—

1. For distension of the ventricles from acute, simple, or tubercular meningitis is a therapeutic measure clearly indicated, and, other things being equal, promises recovery.

2. For effusion of blood into the ventricles from trauma or disease, makes recovery a possibility.

3. For abscess, involving the ventricles, is immediately and imperatively demanded.

4. For effusion into the ventricles, from brain tumors, may afford relief to symptoms.

5. For chronic hydrocephalus, moderate distension of the ventricles, without enlargement of head, may afford relief.

For chronic hydrocephalus, great distension of ventricles, enlargement of head, will lead to a fatal result.

When the general practitioner reflects upon the number of infants in whom effusion occurs (cerebral pressure symptoms) in the course of acute intestinal, pulmonary, and meningeal affections, and the utter inutility of therapeutic measures to afford relief, he will welcome the above proposition most heartily, being only too glad to turn over to the surgeon cases which for all he can do must remain *opprobria medicine* to the end of time.

Since the ventricles of the brain can not be reached except by puncture of considerable brain substance, which of course is dangerous, it would be well for some bold man like Dr. Frank to see what effect trephining and puncture of the dura mater into the general arachnoid space would have upon an average series of cases of acute hydrocephalus.

Since these cases as now treated are almost necessarily fatal, there could be no reasonable objection to trying upon the helpless victims an experiment which holds out some prospect of saving their lives.

KENTUCKY STATE MEDICAL SOCIETY.

The coming meeting of the State Society in Shelbyville, June 6th, promises to be worthy of the occasion, the place of meeting, and the Fellows concerned.

A good number of papers have been secured for the programme, and the Committee of Arrangements have perfected their plans for making the social side of the issue interesting. The following, from the chairman of the Committee, should be carefully noted:

SHELBYVILLE, Ky., April 12, 1894.

Editors American Practitioner and News:

Reduced rates have been secured on all railroads for those attending the Kentucky State Medical Society. Those attending to procure of their home ticket agent a certificate that they have purchased a full fare ticket one way will get return ticket for one third fare by presenting their certificate countersigned by the secretary of the society.

J. M. HARWOOD.

THE ACADEMY OF MEDICINE.

For some weeks past some of the leading physicians and surgeons of the city, noting the fact that the profession has no rallying point, no executive body to which appeal can be made, and no local habitation for such a body, have been holding meetings, to which all regular practitioners are invited, with a view to perfecting plans for the organization of an academy upon a permanent basis.

The work contemplates a strong medical establishment, of which every reputable and regular practitioner is expected to be a member, and under which all existing medical bodies of the city may pursue their work without losing their identity.

It also contemplates the purchase and equipment of a permanent place of meeting and the building up of a library. The officers of the academy are: President, Dr. Ap Morgan Vance; Vice-President, Dr. John G. Cecil; Treasurer, Dr. E. R. Palmer, and Secretary, Dr. Henry E. Tuley.

The scheme has our heartiest commendation, and its success seems certain.

Notes and Queries.

HOW TO MAKE EXECUTED CRIMINALS USEFUL.—An exchange reports that the blood of those poisoned with hydrocyanic acid can be used as an excellent red ink, and that this will neither require antiferments nor any other preservative. If this is really so, then jails might have an ink factory run in connection with their judicial life endings; but as the after life of the into-ink-converted would be a respectable and cheerful sort of a lot, the hydrocyanic route should be only chosen for such as the court would feel were entitled to some clemency. Political thieves, boodlers, and such, should, in their turn, be converted into glue, gelatine, vaseline, and such other menial compounds. Bottles containing this crimino-anthropological red ink, with the manufacturer's trade mark and a view of the taking-off place of the victim upon them, would have a beneficial and restraining effect upon the morals of bank officials, prospective defaulting cashiers, and others who use red ink.—*The National Popular Review*.

MIGRANINE.—Under this name Overlach (*Deutsche Med. Woch.*, No. 47, 1893,) describes the properties of a combination of antipyrine with caffeine and citric acid. He considers it a chemical combination of the three substances, and, after five years' experience of its action in cases of migraine and other forms of headache, he has come to regard it as an almost infallible cure, even in the most obstinate cases. It is useful whether given in the premonitory stage or after the headache has fully developed, and it is seldom that more than one dose is required. The dose is 1.1 grains, to be taken dissolved in water. This quantity contains only 0.09 grain of caffeine, or one sixth of the maximal dose of this substance. It is recommended that the patient rest a while after taking the drug, especially in cases of severe migraine.—*New York Medical Record*.

FINNEY sutured in place the ends of the ring and middle fingers seven hours after they had been cut off by a machine. Firm union took place after two weeks. When seen at the end of three years, motion and sensation were complete. Antiseptics were avoided, because they form a layer of coagulation-necrosis, which might interfere with union.—*Johns Hopkins Bulletin*.

PROFESSOR OF SURGERY (in examining-room): Mr. X., how many kinds of wounds have we in surgery? Mr. X. (long-haired student): Stab wounds and—gunshot wounds. Professor: Are you from Kentucky, sir? Mr. X.: No, sir. I am from Texas, and proud of it.

Special Notices.

DR. CHARLES NEDSKOV, Sorrento, Fla., says: "Papine alone and in combination has been quite satisfactory. A case just dismissed may serve as illustration. The patient, a married lady, I found suffering severely from ovarian congestion and neuralgia. After preliminary treatment I ordered Papine, teaspoonful doses, half-hourly administered. Pain relieved after third dose, and next day she felt, to use her own words, 'a thousand times better.' Combined with Bromidia, a very noted improvement was effected in a case of 'nervous prostration' and inveterate chronic insomnia. Papine's chief recommendation appears to be its uniform reliability, coupled with comparative freedom from deleterious after-effects."

ASTHMA:

R Antipyrine, ℥ij;
 Neurosine, ℥ij;
 Fl. ext. grindelia rob., ℥ss.;
 Syr. yerba santa, ℥jss.

M. Sig: Dessertspoonful as indicated.

DIOS CHEMICAL COMPANY, ST. LOUIS, MO.—Gentlemen: I have used your preparation called Sennine with very good results, and am pleased to note it is doing the same good that I have had from the use of Aristol and like preparations, with this advantage, that it is a home product, and can be purchased without a bond and mortgage being put on one's accumulations. I can not say this of Europhen and Aristol, or any of the like preparations of foreign make. Respectfully,

ROGER WILLIAMS, M. D., Pittsburgh, Pa.

LA GRIPPE.—

R Benzoate sodium, ℥ss.;
 Glycerine, ℥i;
 Liq. tong. sal., ℥ij;
 Aqua mentha pip., ℥ij.

M. Sig: Tablespoonful every two to four hours.

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DR. J. MORRISON RAY.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

ADENOID GROWTHS IN THE DOME OF THE NASO-PHARYNGEAL SPACE, WITH PARTICULAR EMPHASIS UPON THEIR INFLUENCE ON THE EAR DISEASES OF CHILDHOOD.*

BY J. MORRISON RAY, M. D.

Clinical Lecturer on Diseases of the Eye, Ear, Nose, and Throat in the University of Louisville; Visiting Surgeon to Eye, Ear, and Throat Department of Sts. Mary and Elizabeth's Hospital and Louisville City Hospital, etc.

In a paper presented to this Society one year ago I drew your attention to a class of cases frequently met with in which there was an enlargement of the lymphatic tissue at the base of the tongue, and emphasized its importance in the causation of certain throat disorders.

Now I desire to ask your consideration for another affection of the glandular circle that is said, under normal condition, to surround the upper respiratory passages. It consists of an hypertrophy of the collection of lymphatic tissue in the dome of the naso-pharyngeal space, and has been variously called hypertrophy of Luschka's gland, enlargement of the pharyngeal tonsil, or adenoid and lymphoid growths in the roof of the naso-pharynx.

The frequency with which we see children allowed to suffer for years without the recognition of a trouble that leads to a blocking of the naso-pharyngeal space, which, besides interfering with the proper physical development of the child, lays the foundation for an ear trouble that lasts throughout life, is a sufficient reason for presenting the subject for consideration.

* Read before the Louisville Medico-Chirurgical Society, March 23, 1894. For discussion see p. 115.

In addition to a review of the accepted teachings, to which little has been added since the monograph by Meyer, of Copenhagen, in 1873, I can add a clinical experience extending over five years and including something over a hundred cases operated upon.

It is desirable that the general profession with whom this class of sufferers first come in contact should be apprised of its importance and the promptness with which relief can be obtained.

Gray's Anatomy says: "Throughout the pharynx are numerous crypts or recesses the walls of which are surrounded by lymphoid tissue similar to what is found in the tonsils. Across the back part of the pharyngeal cavity between the two eustachian tubes a considerable mass of this tissue exists, and has been named the pharyngeal tonsil."

Harrison Allen, in his Anatomy, says: "Hanging from the roof of this chamber (the naso-pharynx) is the so-called pharyngeal tonsil, which is a sessile collection of lymphoid bodies."

Luschka describes this region as always presenting a mass of lymphatic tissue of about a quarter of an inch in thickness.

More recent investigations seem to throw considerable doubt on the question as to whether the normal naso-pharynx contains any visible enlargement of lymphatic tissue. There is no doubt that the mucous membrane in this region abounds in submucous collections of lymphoid masses continued upward from the visible aggregation between the pillars of the fauces. What constitutes a healthy appearance of this region is still in dispute.

In my experience, in adults the normal vault of the pharynx is perfectly smooth; and when I have found depressions, folds, or thickening, there have been symptoms giving evidence of naso-pharyngeal discomfort, and a history that pointed to the probable existence in childhood of adenoid growths. In children examination by the rhinoscopic mirror is often impossible, and therefore we must depend upon the results of exploration by the finger or *post-mortem* appearances. The former is not usually resorted to unless there are symptoms pointing to this region, and the latter has not in my knowledge been extensively undertaken.

Wright claims that the vault of the normal pharynx in the infant is a comparatively smooth-walled cavity.

The investigation of Killian and Swain seems to show that the so-called Luschka's tonsil has an inconstant embryonal existence and does not present as such in the normal adult throat or even often in childhood.

Meyer found one per cent present in 2,000 examinations; Chappell, in 2,000 school children examined for the prevalence of throat diseases, found three per cent had adenoid tissue in abundance. Bliss, out of 405 children, discovered adenoid in 79. Bronner claims that four or five per cent of all children have naso-pharyngeal obstruction from these growths. We must therefore look upon the presence of visible adenoid tissue in the vault of the pharynx as a pathological condition, often present in childhood, rarely existing in the adult, but, like its analogues, the faucial tonsils and the lymphatic tissue lower down in the intestinal tube, begins to atrophy as adolescence is attained.

The etiology of all diseases is as a rule more or less complex, and adenoids are no exception. Clinically we encounter them in children under the the age of fourteen years.

During childhood the lymphatic system enjoys its greatest activity, hence at this time they are more prone to become the seat of pathological changes that interfere with their nutrition or retrograde metamorphosis. They are often associated with enlarged faucial tonsils and with cervical adenitis.

Heredity plays a part in their development. All observers agree to have seen a number in one family; I have operated on two in the same household. The condition may be congenital.

I have under observation now an infant six weeks old, brought to me for a purulent ophthalmia, in which the mother says there has been difficulty in nasal breathing and a peculiar noise that indicates some obstruction in the naso-pharynx since birth. The child has difficulty in feeding, frequently relinquishing its hold of the breast in order to get air. Examination through the anterior nares shows patulent nostrils, and there is not present excessively enlarged faucial tonsils. The throat space is so small I can not get my finger well into the vault, yet I am certain that the naso-pharynx contains a quantity of adenoid growths which will require removal before relief is obtained.

Bosworth asserts that a constitutional condition difficult to definitely describe, and only one step removed from scrofula, is present in all cases. Racial conditions play an important part. The Jewish race seems to suffer the most. The negro race is remarkably free from this condition. From their well-known proneness to suffer from so-called strumous affections this seems anomalous. Yet in my service at the University Dispensary, where the colored race largely predominate, and where so-called scrofulous eye diseases flourish, I have encountered in

two years only one case of well-defined adenoids, and that was a mulatto with the facial type of the Anglo-Saxon. Among the exciting causes the most important is diphtheria and the exanthematous fevers, especially scarlet fever, the patient or his parents being unconscious of any difficulty in nasal breathing until after these diseases. Climatic condition and repeated attacks of so-called head-colds probably favor activity in the lymphatic tissue, and thus enlargement of adenoid growths.

From the foregoing it is readily understood that the condition is an overabundant growth of the lymphatic tissue found in the nasopharynx, to which is added connective and fibrous tissue, and covered by cylindrical ciliated epithelium. They are soft to the feel, and often easily broken down under the finger, and bleed freely; they are generally covered by mucus, and in children hang from the concave roof of the pharynx like stalactites from the roof of a cavern.



FIG. 1. A recent case operated upon, showing facial expression.

Woakes prefers the name "lymphoid papillomata," and argues that, in their local appearance and tendency to spontaneous disappearance after puberty, they are like warts on the hands, etc.

In young subjects the amount of fibrous tissue present seems to be small, but when found in children of ten or twelve years of age the growths are much firmer to the touch, less likely to bleed when handled, and when examined microscopically show a far more abundant development of fibrous and connective tissue and less so-called lymphatic tissue. This condition will be found to have considerable importance in deciding the method of operation for their removal.

The diagnostic symptoms are both local and general. To one accus-

tomed to see such cases, the facial expression, the rounded shoulders, and contracted chest are often sufficient. The so-called adenoid physiognomy is familiar to many, consisting of a pinched nasal aspect, elongated face, open mouth, listless, dull expression, a peculiar dead nasal twang to the voice; and lateral compression of the chest, with marked prominence of the sternum, so-called pigeon breast, are more or less prominent in well-defined cases. The respiratory symptoms are those of mouth-breathing, especially bad at night, constituting the snorer, with restless, loud breathing, frequently interrupted by paroxysms of suffocation and wakefulness. The local symptoms are found both in the nose, throat, and ear. The nose generally shows some turgescence of the turbinated, rarely deviation of the septum, and often more or less anterior discharges of mucus that frequently excoriate the nostrils, a result of the child's inability to blow the nose. Spicer claims that the transverse veins at the root of the nose are enlarged. I have looked for this symptom a number of times, but failed to observe it. The lips will be dry and often fissured, and the tongue furred from mouth-breathing. A condition present in many cases is the high-arched palate and contracted jaw, with irregular and decayed teeth. I have recently seen a case, operated upon one and a half years ago, in whom the teeth were much distorted and decayed at the time of the operation; and a dentist has stated to me that the teeth were much more amenable to treatment since the removal of the causes of the mouth-breathing.

I am convinced that cases of excessively enlarged faucial tonsils have always associated with them adenoids, and frequently masses of lymphatic tissue can be seen studded over the oro-pharynx or as a ridge passing up the lateral walls.

Since the disease is almost entirely confined to children between the ages of three and fourteen, it is often impossible to view the naso-pharynx by the aid of the mirror, therefore the final point in diagnosis must be made by exploration of the pharyngeal vault by means of the finger. The index finger, passed gently into the mouth and against the back wall of the pharynx, can be carried up behind the palate and the region of the naso-pharynx thoroughly explored. When passed well up, the posterior free edge of the nasal septum and the opening of the nares can be easily felt, on either side the pharyngeal mouths of the eustachian tubes are readily recognized, and the vault swept by the end of the finger. The normal vault is perfectly smooth, and but little intervenes between the finger and the underlying bone. If adenoids be present

in great quantities they will be felt as small, soft, round masses that separate the end of the finger from the bone. If the subject is near adult age the outlines of a cushion-like mass can be made out. The symptom depended largely upon by Bôsworth is the spraying of vaseline into one nostril, and, if there are no adenoids present, the clouds of vaporized oil will return through the opposite nostril; if adenoids are present, no return is noticed from the other nostril. This symptom I believe is of little importance, for the vapor will return unless the nasopharynx is completely occluded, and when this condition is present the diagnosis is self-evident from other well-known symptoms. Numerous other symptoms have been dwelt upon by various writers, but are of minor importance and only corroborative.

One of a general nature, dwelt upon by Guye, is what he calls aprosexia, and consists of mental hebetude, headache, listlessness, inability to fix the attention and slow progress in learning. He claims this is due to the intimate connection of this region with the cranial cavity, through the numerous openings for lymphatics and blood-vessels in the sphenoid bone, and interference with lymph drainage from the cranial cavity. Others have verified these observations, and claim marked improvement in the mental condition by removal of the obstruction.

To my mind the most important lesion resulting directly from this disease is the interference with the organs of hearing. Happily the modern otologist has begun to recognize the fact that the majority of middle ear troubles are due directly to diseases of the nasopharynx, and therefore routine examination of these parts is carried out. The majority of adenoid subjects first seek relief for ear trouble. The exact cause of the ear disease present has not been definitely settled. Whether it is due to direct obstruction by pressure of the growth against the mouths of the eustachian tubes, whether to interference with ventilation by preventing the free entrance of air into the nasopharynx, whether by direct extension of the frequent attack of acute inflammation to which these growths are prone, or to stagnation of the return circulation by pressure of these growths upon the pharyngeal veins, as suggested by Blake, is of no importance from a therapeutic standpoint; probably all are factors, for we do not find abundant tissue or decided obstructed breathing in all cases with ear complications. Blake estimates that eighty per cent of children with adenoids have ear trouble. This consists in recurring attacks of acute middle ear inflammation, with suppuration or not, coming on generally during the winter when children are

exposed to the influences of weather changes. These attacks eventually lead to chronic deafness or pus discharges that resist all local medication.

Barrett and Webster, from a study of two hundred cases, go so far as to say that not only are all the middle ear diseases of children traced to the presence of these growths, but the deafness of adults is largely dependent upon the presence of adenoids in earlier life, and thus the establishment of changes that produce later on permanent ear disease.

From what has been said it may be assumed that the treatment of these growths depends upon their character, size, the age of the patient, and the symptoms requiring relief. No doubt attention to the general health by the administration of constructives is often indicated, for by correcting anemia and aiding in tissue-building we hasten growth in the child, and as the naso-pharynx enlarges the growths are carried farther from the soft palate and the breathing space is correspondingly increased. In my experience local applications of medicaments, such as caustics or astringents, are of no importance, and simply produce pain without alleviating the symptoms or lessening the obstruction.

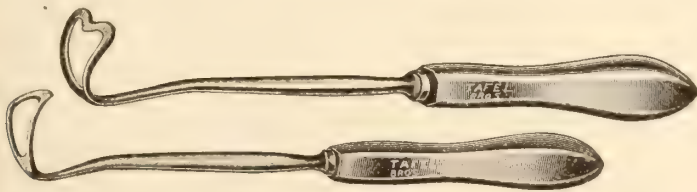


FIG. 2. Improved Gottstein Curettes.

The only sure and prompt relief is a surgical one. The methods of procedure advised are the use of variously constructed forceps, curettes, snares, the galvano-cautery, and the finger nail. The galvano-cautery is difficult to use in children, dangerous when anesthetics are administered, and slow in its results; besides it is the most liable of all methods to excite ear inflammation. Snares are difficult to manipulate in the naso-pharynx, and unless the growths are large and pedunculated a failure to engage them in the loop is probable. The method therefore lies between forceps, curette, and the finger nail. If the growths are abundant, soft, and friable, the finger nail can scrape them out quickly and without danger. If they contain considerable fibrous tissue, forceps or curette are required. I have tried the different shaped forceps, but have now discarded them in young children for the improved Gottstein curettes, which, if properly used, are free of danger to surrounding parts, and the manipulation is quickly accomplished. The question of

anesthesia depends upon the age and tractability of the child. If chloroform is administered, the hanging-head position must be obtained, lest the free flow of blood that follows may produce asphyxia. The amount of blood lost is usually not great; while quite free for a few seconds, it quickly stops spontaneously. The danger from hemorrhage has not been found to be great. Delevan, in an extensive research, found only five recorded cases, and three of these were "bleeders." In children twelve to fourteen years of age the post-nasal forceps will often be required as an adjunct to the curette, and if the growth is firm to the finger the forceps alone are often satisfactory. The Gradle instrument grasps a large piece at one bite, and I have found it valuable in this variety. In the after-treatment nothing is required beyond quiet for a few hours, and keeping the parts free of infection by antiseptic washes. No operation can be considered a success that does not remove all the offending tissue. In my earlier work I attempted to remove them without an anesthetic and with forceps; rarely was I able to induce a child to allow the introduction of cutting forceps more than once or twice, and months afterward but little relief was attained, and I was inclined to believe possibly there was some return. If once thoroughly removed there can be no return. The results of the operation are as satisfactory as any in surgery. The improvement in general health is often remarkable. Jakin reports a case in which in two years a boy increased in weight from one hundred and five to one hundred and forty pounds, and in height from five feet three inches to five feet ten inches. Often without internal treatment in a few months the ruddy complexion and increased general vigor is noticeable to all. The family express satisfaction for the relief the operation gives to recurring earaches and ear discharges, and the change in the character of breathing. While we find these growths in children, the remnants alone are noticeable in the adult, yet the roughened surface left in the naso-pharynx and the bands of adhesions to the eustachian tubes produce synechia that interferes with its function, and gives rise to permanent ear trouble and chronic post-nasal discharges that resist all treatment. I could recite a number of cases showing relief to the symptoms I have described, but it would take too long.

I have given a review of the subject to excite discussion, and to attract the attention of this Society to an often neglected region. I can briefly summarize what I wish to emphasize as follows:

1. The majority of cases of nasal obstruction in children are due to the presence of adenoids in the naso-pharynx.
2. Mouth-breathing, snoring, wakefulness, defective mental development, and bad teeth, deformed chests, and deafness result from this obstruction.
3. The recurring earaches and pus discharges from the ear, persistently resisting treatment directed to the ear, are the result of the presence of adenoids, and in a majority of cases prompt relief follows surgical removal of the growths.
4. Many of the ear diseases of adults and so-called post-nasal catarrhs are the result of adenoids that had not been recognized or treated in early life.
5. That, while adenoids will apparently disappear as adolescence is attained, they never entirely atrophy, but leave fibrous stumps and adhesions to the eustachian tubes.
6. Operations for their removal should be undertaken under an anesthetic and thorough removal accomplished.
7. The operation is reasonably safe, and, besides giving decided relief to the local symptoms in the throat and ear, often shows wonderful improvement in the general physical condition.

LOUISVILLE.

TREATMENT OF WOUNDS OF THE CORNEA.

BY L. D. BROSE, M. D., PH. D.

Oculist and Aurist to St. Mary's Hospital, Evansville, Ind.

The relation of the following case, which occurred in my practice in a neighboring town, demonstrates how truly uninformed the general practitioner at times is as to how to treat eye injuries. Mr. F. B., fifty-two years old, and a mechanic, who wears glasses for the distance because of a high degree of far-sightedness, was injured in the left eye, while holding a chisel for a helper to strike, through the chisel edge breaking and the steel particles flying with great force against the lens in his spectacles, breaking the glass and driving the fragments forcibly against the cornea. The accident occurred in a cramped space in the bottom of a coal mine slope, and his comrades removed as best they could such particles of glass as readily presented themselves, and then

sent him to a physician. The doctor superficially inspected the eye, ordered the man taken to his home and confined in a dark room. Occasionally a little milk was to be gently smeared over the lids, to which a few drops of the tincture of belladonna had been added. Internally calomel and quinine, three or four times daily, were prescribed. This treatment was kept up for one week without another examination of the eye, for fear that light contact would make the eye inflammation worse. In the mean time the man was badly salivated, became dissatisfied with his medical attendant, and, notwithstanding his emphatic objection that a consultation was wholly unnecessary, decided to call in an oculist, and so wrote one of his friends, who asked me to go and see the patient. I found him in a room darkened so that you could scarcely see your hand before you, and as further protection against light a large screen had been erected around the bed. He complained not so much of pain in the eye as of great physical weakness, and that all of his teeth were very loose. Gently opening the lids the greater part of the cornea was found destroyed, the iris prolapsed and united with the edges of the corneal opening. There was little or no light perception, and with careful oblique illumination nothing foreign could be seen, the matting together of iris and inflammatory exudation completely covering glass, if such there remained in the eye.

The opinion was given that it would be best to remove the sightless orb. To this the attending physician as well as the patient objected, so a lotion of sublimate-water, 1-5,000, was ordered applied upon compresses of absorbent cotton, the internal medication of quinine and calomel discontinued, and the patient told he might sit up. The eye inflammation slowly diminished, and some four weeks later the man traveled some forty miles by rail and visited my office. The pericorneal injection still remained great, and the eye at times was quite painful. He was cautioned as to how sympathetic involvement of the well eye might arise and then dismissed, with permission to oversee workmen, but to do no lifting or otherwise strain himself. Some two weeks after his return home he wrote that the eye was again highly inflamed and very painful, and asked what he should do. Hot fomentations were directed, and in case the pain was not relieved in a few days he was to come and see me. This was the last I heard of the case.

The correct treatment of such wounds is the removal of all foreign particles as far as possible with sterilized instruments. For sterilization the instruments may be boiled in hot water a few moments or immersed

in a four-per-cent solution of carbolized water for a longer time, and then dried with a sterilized cloth. The face around the eye should be thoroughly cleansed with soap and water and then bathed, including the lids, with either chlorine-water or sublimate-water, the latter in the strength of 1-5,000.

If dirt or any unclean foreign substance has been carried into the eye wound, and there has been no vitreous prolapse, the eye itself should be thoroughly bathed with the antiseptic. Preparatory to instrumental contact, and for the relief of local pain, a few drops of a two-per-cent sterilized cocaine solution is instilled between the lids. A one-per-cent sterilized atropine solution is generally made use of in all corneal wounds up to within a few millimeters of the corneo-sclera junction, and this is all the more indicated if there is a tendency to iris prolapse. In case the wound is over the outer periphery of the iris a one-per-cent sterilized solution of sulphate of eserine is used instead of an atropine solution. All eye drops are best made up with distilled water, filtered, and then submitted to steam heat for ten to twenty minutes in a closed sterilizer. An iris prolapse that can not be replaced should be excised. A pad of sterilized absorbent cotton moistened with either chlorine-water or sublimate-water, together with a clean bandage, completes the dressing. The patient should be placed in a darkened room and kept quiet. Of course small corneal wounds do not require so much care as large ones, nor always house confinement. But even these may be followed by the most serious consequences should they become infected. As an illustration I may relate the following case: A. H., aged thirty-eight years, an employe in a stove foundry, got a small particle of foreign substance in his left eye, which after repeated rubbing he thought he removed. Two days later he called to see me, saying the foreign body was still troubling him. Upon examination no foreign body was found, but instead a grayish infiltrated spot, scarcely a pin's head in size, over the lower part of the pupil, together with marked pericorneal injection. A few drops of an atropine solution were instilled, a pad of cotton moistened in sublimate-water applied, and the eye bandaged. Chlorine-water was prescribed, of which a tablespoonful to a saucer of hot water should be used to make repeated hot fomentations, and two drops of a one-per-cent solution of atropine dropped between the lids every four hours. He was told that the eye-trouble was a dangerous one and to call next day. Instead of following my advice he, at the suggestion of well-meaning friends, consulted a

faith doctor. In eight days more the eye became irretrievably lost, and the patient through mortification would not see me, but called in another physician, who removed the ball to prevent sympathetic involvement of the other eye.

EVANSVILLE, IND.

THE EVOLUTION AND DESCENT OF MAN.*

BY T. B. GREENLEY, M. D.

[CONTINUED FROM PAGE 340.]

It can be safely affirmed that when the moneron of Haeckel was made and the few lower organic forms of Darwin were miraculously created by Divine Power, which they regarded as sufficient for evolution to commence on, creation had only cleverly commenced. These low forms were entirely organless and without the least mentality. It would have been quite interesting if the great scientists had given us a detailed explanation how the various organs of the different species of animals were formed by slight variations and preserved by natural selection. Was the sense of the want of food developed or the stomach?

According to the theory of slight variations at long intervals it required a long time to form the stomach, the first essential organ for the digestion of food for the sustenance of the animal, unless we claim they lived by absorption. But, under the laws of evolution, new structures or changes in old ones took place very gradually, and of course no organ could have been formed entirely for a long period of time, and as the first forms of life propagated themselves by subdivision, natural selection had to direct that two sets of organs be kept under way all the time or the work would have been lost by subdivision at every generation.

In this instance heredity was entirely helpless. If the stomach or any other important organ had been suddenly formed by variation due to the environment of the animal, it would have been immediately destroyed by natural selection in accordance with the law of that wonderful power, because variations must be slight and at long intervals.

Then, again, in accordance with these laws, these variations at long intervals in forming a new organ would have been useless to the animal during the process, and natural selection would have eliminated them. But admit that, finally, after a long period of time, without the knowledge of the animal that it needed any change by variation and natural selection, some variety of a mollusk resulted.

*Read before the Hardin County Medical Society, April, 1893.

Now, as far as the work of evolution is concerned, new organs for the animal next in the scale have to be manufactured, and a little higher up natural selection will be called to aid variation in the formation of bone, muscles, and brain, which in the first animal will have to be accomplished without the aid of heredity. Then those delicate organs of sense, the eye and ear, etc., have to be made from the start, as evolution had none in the monera to commence on.

Then, again, all these organs being evolved by slight variations at long intervals would be, during their construction, useless to the animals; would be, as before remarked, destroyed by natural selection. In our estimation there are some organs and properties attached to certain animals that can not be explained by natural selection. I allude to such organs as those belonging to venomous reptiles and those belonging to the fox and musk deer.

How did natural selection gradually by slight variations manufacture that deadly poison possessed by the rattler, cobra, and snakes of this class? How was the peculiar musk odor and the scent of the fox's feet produced by gradual development? Then, right here the law of natural selection is greatly violated, for it claims that all its works were for the advantage or benefit of the animal. Of course in the case of the fox the odor he leaves in his tracks is greatly to his disadvantage when chased by the hound.

But, if we examine some of the laws of evolution as laid down by Darwin, it will be a hard matter to understand, as before remarked, how they operated on the lower forms of life. He says: "Unless favorable variations be inherited by some at least of the offspring nothing can be effected by natural selection." Again, "Natural selection acts only by the preservation and accumulation of small inherited modifications. Any variation which is not inherited is unimportant for us."

Now, as Dr. Hall remarks, there can be no inheritance among the first forms of life, such as Darwin and Haeckel commenced their evolution on. And we are compelled to conclude from their own statements that no evolution could have resulted from these low forms of life.

Evolutionists place great stress on what they term "struggle for existence." This struggle seems to be confined principally within the limits of each species. It is applied to man as well as to animals, and among the latter it embraces struggles between the males for the mastery for the females as well as struggle for food. Now the question is asked, what observer has noticed any special struggle going on among

any known species of animals, either for the mastery over each other for advantage with the females or for food to maintain existence? We, of course, have heard some complaint on the part of tomcats and observed fights among roosters, but not to extermination. The same thing might be said of man, with now and then an exception, as it regards combats on account of love matters. But the result is not always in favor of the survival of the fittest. As to the struggle for food, there is not enough of it going on for the welfare of the people. In fact the want of food, as a rule, is due to the want of proper struggling. The causes that lead to this want are generally due to indolency and dissipation of various kinds. The greatest struggle among the species *homo* at present seems to be between politicians and office-seekers, but we hope it will not result in extermination, and also would like to see the *fittest* succeed. I can not see why the claim of "struggle for existence" is made in behalf of evolution, unless it could be shown that it destroyed those animals and men who are most unfit to propagate their species and allowed those to survive who were the fittest for natural selection to operate on.

It is also claimed that the fact that there exist so many similarities between the various organs and their functions of man and the lower animals is strong evidence that one species is descended from another. We claim that this very similarity argues against the descent theory and in favor of Divine creation, showing the handiwork of his designing power.

A connoisseur of paintings is able, upon examining a lot of pictures, to distinguish the works of various artists by some trace of similarity in their execution. You may take, for instance, the works of Raphael, and some expert will point out some distinctive traits of the painter manifested in each painting.

It would have been almost impracticable for the Deity himself to have made much difference between the organs and their functions in the higher grades of animals, among so many species, without this difference being injurious to them. It would not have been to the advantage of man to have had three eyes, three legs, or a double face, so as to differentiate him from other mammals. The design of the Creator was to adapt the organs of man as well as those of other animals to the proper use and wants of their various conditions of life.

Hybridization in crossing species is a great stumbling-block to evolutionists. It is a well-established fact, noticed by all observers, that

the progeny of two distinct species are hybrids or mules, and are sterile either among themselves or their kin on either side. This is one of the heaviest blows against natural selection being capable of developing a new species out of one existing. The crossing of species is such an outrage on the laws of nature that we see throughout creation that no two species will amalgamate. This seems to be an inherent instinct or natural law existing among all animals. Hence, it would seem to be an absurdity under this known law to suppose for a moment that one species, either by slow gradations or sudden changes, could possibly engender another or higher order than themselves.

In all probability the evolution theory, as enunciated by Darwin, was suggested by his experiments in the "domestication of plants and animals." He discovered that by selection in the breeding of animals, as all other fancy breeders have done, that the breed could be greatly improved; by selecting the finest shaped of the flock he could greatly improve them in form and beauty. But he nor any of the great breeders of England have been able in a hundred years to develop a higher species—in fact their best efforts have resulted only in the production of a handsomer formed breed in any species of animals on which they have tried their experiments.

It is a well-known fact that the shape and beauty of wild flowers may be greatly enhanced by cultivation, but if neglected or allowed to go back to their wild state they will retrograde to their original condition. The same may be said of animals when allowed to run without the supervision of intellectual guardianship.

These statements being facts generally well known, it is remarkably strange that such a great mind as Darwin possessed should conclude that natural selection, as he maintains, exerts a greater and more favorable influence in the way of propagation of animals and plants than can be effected by the intelligent supervision of man. Such an opinion as this, expressed by a man who stands so high in the ranks of great minds as Darwin, almost impels us to doubt our sense of belief. Then we can repeat the quotation: "The desire to establish or avoid a certain result can so warp the mind as to destroy its power of estimating facts."

Dr. Hall points out wherein Prof. Haeckel admits that the adaptability is limited to each tribe of animals. He says: "There appears indeed to be a limit given to the adaptability of every organism by the type of its tribe or phylum. Thus, for example, no vertebrate animals can acquire the ventral nerve chord of articulate animals instead of

the characteristic spinal marrow of the vertebrate animals. However, within this hereditary primary form, within this inalienable type, the degree of adaptability is unlimited."

This is an admission in opposition to the theory of descent very unaccountable, if we had not Darwin's recognition and indorsement of Haeckel. He says: "Prof. Haeckel, in his 'General Morphology' and other works, has brought his great knowledge and abilities to bear on what he calls philogeny or the lines of descent of all organic beings."

But it seems that Haeckel had entertained more enlarged views as to the adaptation of the various tribes. He says that an eighth law of adaptation we may call the law of unlimited or infinite adaptation. By it we simply mean to express that we know of no limit to the variations of organic forms occasioned by the external conditions of existence.

Dr. Hall suggests that, perhaps, on reflection, Prof. Haeckel thought the expression of infinite and unlimited variations in organic forms might be too sweeping, and so modified it as to apply to species within their tribe or phylum.

The doctrine of infinite change and development, if not limited, he concludes perhaps might continue until man was evolved into an angel or a god, something the professor did not wish to see, as he is somewhat skeptical as to the existence of such beings. Now might it not be asked, is not the question of evolution and natural selection about surrendered when it is admitted that variations and adaptability are confined to the species of their tribe or phylum?

In fact, if we apply the laws as laid down which govern evolution, the whole matter is surrendered in the outset. Read some of the laws as laid down by Darwin: "A very simple form fitted for very simple conditions of life might remain for indefinite ages unaltered or unimproved; for what would it profit an infusorial animalcule, for instance, or an intestinal worm to become highly organized?" Again: "Under very simple conditions of life a high organization would be of no service." Also says: "Natural selection acts through one form having some advantage over other forms in the struggle for existence. Natural selection acts only by the preservation and accumulation of small inherited modifications, each profitable to the preserved being."

Now it will be seen, as before remarked, here is an estoppel in the outset before evolution begins. It is acknowledged that natural selection can not act on the lower forms because they are not subject to variations by environment, and, moreover, they would not be benefited

by change of form if such a thing was possible. Therefore, as there was no hereditary influence nor variation in form produced by surroundings, they were not subject to the action of natural selection; they were allowed to remain for "indefinite ages unaltered or unimproved."

These conditions being facts, at what time in the world's history did real evolution commence? It can not be disputed but great injustice was done to succeeding species if these lower and unimportant forms of life, so insignificant in the world's history that natural selection could not improve them, were allowed to remain as sovereign rulers of the universe for so many "indefinite ages." But now, if this is a fact, the question naturally arises, at what time and on what forms of life did evolution commence? It must have had its origin on some form much higher than the protozoa or a lumbricoid worm, for it is admitted that natural selection could not act on them; and if it could they would not have been benefited. It must have been on some species sufficiently high up in the scale to have been conscious of the fact that they needed improvement, and were in such a locality that environment produced certain modified variations in the way of improvement, that natural selection through the influence of heredity might preserve for the benefit of itself and the next coming species. But, admitting all this to be true, we ask how this higher form came into existence? As they could not have descended from the first forms, that evolution had no control over, they must have been created by supernatural power. Therefore might not the great naturalist, Mr. Darwin, have been mistaken in the character of the forms he admits were first created? They must have been of a higher order than he gave them credit for.

We also may infer, without being charged with an overamount of credulity, that all the forms of life from the lowest up to the time evolution commenced were created by omnipotent power. If we deny this proposition, we are compelled to deny the truth of the whole theory of evolution. This much is proved by the great naturalists themselves, as they admit that the laws of evolution are inapplicable to the lower forms of life.

We will now proceed to another point in evolution that seems to have a peculiar if not a curious bearing, and which needs some explanation by scientists. I allude to that part of the theory that claims that as new forms sprang into existence their progenitors were supplanted or perished. On this subject I quote from Mr. Darwin: "In all cases the new and improved forms of life tend to supplant the old

and unimproved forms." Again: "New varieties continually take the place of and supplant the parent forms." Also says: "New and improved varieties will inevitably supplant and exterminate the older." Now ask the observer if he knows of the existence of any low forms of life. This is a theory, or rather an assertion, that will not bear examination by the most casual observation. If it was true the world would be depopulated of all animals aside from man, and if Haeckel had not stopped evolution man would have been on the eve of being rooted out. We are astonished that such a man as Darwin should make such a statement. But the theory of evolution is such an intricate subject, with so many intricate and contradictory laws by which it is claimed to be governed, that no doubt at the time these statements were made he was, from overwork, laboring under neurasthenia, or nervous prostration, and was not exactly cognizant of what he did say.

These statements were not essential to the status of the doctrine of evolution, for he and Haeckel both claim that new species were evolved in single pairs in certain localities, and this process happened only once on the face of the globe. As soon as one pair of a new species was formed evolution commenced to improve them for the benefit of the next new species of a higher type. In this process of evolution it does not seem essential that the lower forms of the preceding species should perish unless on account of the struggle for existence. And Mr. Darwin in one part of his works admits that some of the parent species were preserved, as it was essential to the conditions of life.

In reviewing this part of the work we are struck with the remarkable circumstance that out of a whole species of any form of life there was only one pair evolved high enough to be parents of another single pair to start the new species on. Natural selection must have kept a very close watch on evolution at the wind up of one species and commencement of another. If any mishap had occurred with the last pair and the first pair we might have been devoid of a species, or evolution would have been compelled to do her work over again. And it is remarkably strange that the last pair was so regulated by natural selection that one pair only was propagated to commence the new species with. It is also wonderful how natural selection managed to pick out the *fittest* pair of a certain species, and keep it up in this way for many numberless generations in the line of descent from this pair, selecting the *fittest* in every generation, by preserving the beneficial variations through heredity. It also seems strange that natural selection took no notice of any member

of a species except in the line of that member that was intended to be the progenitor of a new species. Thus it would appear that nature is a respecter of persons, or at least of animals, giving its entire attention to some and allowing others to shift for themselves. Who knows but, if nature had been equally just to all, favoring all alike in the preservation of all traits of character which may have been beneficial, and allowing those of a detrimental character to disappear or perish, men would to-day be more happy, more intelligent, and more worthy of our great ancestors; and if she had, on the other hand, in accordance with the principle laid down which is said to have governed evolution, that is, the selection and survival of the fittest, that we now should have none but good and healthy people extant. All who were not fit to propagate their species would have been, under this law, allowed to perish. We should then have at present no murderers, thieves, or blasphemers living, as they were evidently not fit to be progenitors of their race, as by heredity they would transmit their moral infirmities to their offspring. But in this particular we readily perceive that evolution has been very derelict in performing its proper functions.

Scientists are not agreed as to the time which has elapsed since the appearance of the first forms of organic structure. It must have been a number of millions of years. The protozoa, it is claimed, appeared in the eozoic age. According to geologists these ages embrace a period of eighty millions of years; and, as it is allowed that the glacial period embraced about one hundred and eighty thousand, and the post-glacial about thirty thousand years, then it will be seen what an immense time elapsed between the appearance of life on the earth and that of man. But, as there exists such great differences in the calculations of different authors as to numbers, it makes it doubtful as to any thing like accuracy in the figures. This fact is easily illustrated by the great differences in the number of years as estimated by different authors as to the time required for the Niagara River to have cut its way from Lewiston up to the present falls, a distance of six miles. Mr. Bakewell made its age 12,300 years; Messrs. Lyell and Hall made it 35,000 years; Mr. Desor 1,232 years; while Mr. Marcus found data to make it 64,842 years. It will be seen there is a vast difference between these calculators. In 1842 a survey was made, and again in 1875, and it was found a recession of three feet per annum had taken place, which would require 12,300 years to have made the distance of six miles, so that it appears Mr. Bakewell was correct in his estimate.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, March 23, 1894, Dr. T. S. Bullock, Vice-President, in the chair.

Dr. William Cheatham (Sympathetic Ophthalmia): This little boy, seven years of age, a year ago last November was struck in the right eye by a piece of steel, splitting the cornea, resulting in a cicatrix extending all the way across the cornea, and adhesion of the iris the full length of the wound above and below, with complete closure of the pupil. One year afterward the left eye began to be disturbed. About Christmas there was considerable inflammation in the left eye; this progressed until there was only perception of light, with occlusion of the pupil, with almost total posterior synechia; in some places where the iris is not entirely attached you will see the aqueous humor in the posterior chamber pushing it forward. This case brings up several points of interest in which I would like to have the help of the oculists present. One question now is whether the injured eye is not going to be the better of the two? He now has quick perception of light in both eyes; in passing along the street he can tell when he comes to the gas-lights, etc., and can avoid running into objects or persons without any trouble. Ten days ago I took out a small section of the iris of the right eye, and also did a small iridectomy on the left. As is usual in these cases, the iridectomy wound has entirely closed in the left eye. This is about the only form of iritis in which we can not make a satisfactory artificial pupil, and for this reason I would advise to wait for months, or sometimes years, before trying surgery in a sympathetic iridocyclitis; if you make an iridectomy it will almost invariably close. I believe the time for the enucleation of the right eye in the case before us has passed, as by the sympathetic involvement of the left eye the right will likely be of the most service; while it is small and partially shrunken I think it would be of considerable service if we could only get a pupil. Another point, in regard to operating on the right eye, is whether any lens is present; of course it is uncertain whether the lens is in position. If we could be sure that the lens is intact, then an iridectomy would

* Stenographically reported by C. C. Mapes.

be the proper procedure; if not, an iridotomy would have been the better.

The case brings up another question as to the cause of sympathetic ophthalmia. I do not think professional opinion is at all settled; whether the morbid agent travels along the optic nerve, the ciliary nerve, whether it is microbic, or what is the origin of sympathetic ophthalmia no one knows. All theories may be correct; one in a given case, and another in another. The question comes in here whether it is possible to have sympathetic ophthalmia without an opening in the eyeball. My own opinion is that we can, because we have it in cases in which there is absolutely no history of trauma. I have seen a case where the ciliary body was involved, where the eye was diseased as a result of syphilis, and sympathetic trouble set up in the other eye when there had been no opening whatever through the sclera. Of course that decides against the theory of the microbic origin of sympathetic ophthalmia, because unless we have a broken surface the microbe can not enter. In these cases, however, it is contended that there is a microscopic tear in the surface through which the microbe enters, and thus we have sympathetic ophthalmia.

Knapp divides these cases into "sympathetic irritation" and "sympathetic inflammation," and states that irritation gets well, but the cases of inflammation do not get well. I can not agree with this statement, as I have seen a great many cases of inflammation get well.

The most remarkable case that I ever saw was one in which the man could scarcely tell daylight from darkness. I saw the case with Dr. Vance, and under local anesthesia we enucleated the bad eye, and with treatment the patient secured vision of $\frac{2}{30}$ in the remaining eye. I read a report of a case recently where a man had gotten vision of $\frac{2}{20}$. I saw a case with Dr. Dabney some time ago in which the result was vision of $\frac{2}{20}$. These were all undoubted cases of sympathetic inflammation.

There is another point of interest in the case of the little boy before us. Of course we all recognize that enucleation of the injured eye in the beginning would have been the proper thing, still there are some dangers in enucleation; the danger of anesthesia, some danger of sepsis, hemorrhage, meningitis, and death. I have seen two cases of very serious hemorrhage the result of enucleation of the eye. Dr. Cartledge will remember having seen with me two cases of acute insanity following enucleation of the eye. Sometimes erysipelas and panophthalmitis

follow as a result of enucleation. Cases of death following enucleation of the eye are not at all common, although we must admit there are some serious dangers connected with the operation. I have seen a series of 500 to 600 cases reported without a single death. Another operator reports 600 cases with only one or two deaths.

I would like for the Fellows to examine the eyes of this little patient and make any suggestions they may be able as to what ought to be done. The case is particularly interesting to me because I have at present six cases of recent trauma with just such injuries as this, in which the question comes up whether enucleation should be done or not. One is in the person of a child eighteen months old, who inflicted an injury to its eye with a pair of scissors. Another, a child brought to me from Indiana, injured her eye while at school with a pencil. As I have said, I have under observation now six cases of recent trauma in which the question of enucleation of the eye comes up. I know some of you may say wait for a while and see if any sympathetic trouble sets up; if this is done it may be neglected until it is too late for enucleation. I believe, however, that this would be wise if the patients could be kept constantly under observation, because we have a period of sympathetic irritation just preceding inflammation. In the case I have mentioned of the child eighteen months old, there is no sight in the affected eye; it is soft and shrunken, the eye being about two thirds its normal size.

DISCUSSION.

Dr. S. G. Dabney: I agree with what Dr. Cheatham has said, that the time for operative measures in the case presented has passed so far as the eye originally injured is concerned. I certainly favor leaving the injured eye in this case, as I believe the chances of vision are more favorable than in the sympathetic eye, in view of the fact that the iridectomy upon it has remained open better than that upon the sympathetically inflamed eye. Outside the case presented by Dr. Cheatham the subject is extremely interesting and one of great importance. In enucleation for panophthalmitis, Noyes, after reviewing the whole subject thoroughly, gives the proportion of deaths 1 in 4,000. Different writers differ widely as regards the advisability of enucleation during acute panophthalmitis. Fuchs in his recent book advises against it. Most American writers, as far as I am aware, rather favor it. Roosa, in his edition of Shmidt-Rimpler's works, states that results from operative measures in acute panophthalmitis are in most instances very satisfactory.

The case Dr. Cheatham refers to, which he was kind enough to see with me, possessed a great many features of interest. It was the only case of suppuration I have had in operation for cataract. The patient was a lady sixty years of age. Her general health was bad. I had an analysis made of the urine before operating, always feeling somewhat anxious about the case, and had some hesitancy about operating, but the examination revealed nothing abnormal. The operation itself seemed to be according to rule, as far as that was concerned. The next day she could count fingers easily and there was no pain or other disturbance. Forty-eight hours afterward the suppuration began. Possibly her own imprudence the night after the operation had something to do with it. She passed water perhaps a dozen times during the night, and insisted upon getting up. Panophthalmitis followed, and I rather advised enucleation. I did not, however, urge operation, because many writers on the subject advise that the removal of the eye should not be done during an acute panophthalmitis, because of the danger of meningitis, and because the danger of sympathetic ophthalmia following such inflammation is very slight. The patient was unwilling to have the eye removed, and asked to have another opinion. Dr. Cheatham and myself consulted in regard to the case, and agreed, considering the very slight danger of further trouble, and considering the patient's own wishes, that we would leave the panophthalmitic eye. The case went on without any unusual result for six weeks. She was suffering very little pain, being built up with tonics, etc., in the mean time. Six weeks later she came to my office, saying that three or four days previously she had begun to have pain in her good eye. An examination showed at once that she had an iridocyclitis or iridochoroiditis. In view of the fact that Dr. Cheatham had seen the case previously I asked that he again be called to see her. The only indication was removal of the stump of the panophthalmitic eye, and we advised that this be done immediately. This was late Saturday evening, and the patient had then been suffering with sympathetic inflammation for at least four days, but as she did not understand the gravity of the case I was not called earlier. I removed the eye on Sunday morning, twelve hours after seeing her; the inflammation subsided immediately, and she now has perfect sight in the other eye, being $\frac{2}{3}$ 0. That was certainly a case of sympathetic inflammation which we have every reason to believe was cured by removal of the offending eye. In regard to operative measures, when sympathetic inflammation has

already begun or exists and the patient still retains sight, the rule is not to remove the first injured eye, because, as Dr. Cheatham has said, often the ultimate vision in this eye is better than the one subject of sympathetic inflammation.

Dr. J. M. Ray: The question of sympathetic ophthalmia, and the kind of eye troubles likely to give rise to sympathetic ophthalmia, is an extremely interesting one. We are all agreed that injuries to the eye, especially injuries involving the cornea with adhesions of the iris, or wounds involving the ciliary body, are the conditions which are liable to be followed by or give rise to sympathetic ophthalmia. As to whether sympathetic ophthalmia follows any inflammatory disease of the eye without rupture or perforation of the eyeball is a disputed question. The accepted teaching of the present time in reference to the cause of sympathetic ophthalmia is that it is microbic in origin. Deutschmann has made some very interesting experiments on this subject, and most authorities agree with him, and if his experiments and statements are true it is impossible to have a sympathetic ophthalmia without rupture of the eyeball.

At a meeting of the American Ophthalmological Society last summer Dr. Knapp reported a case of sympathetic ophthalmia resulting from a wound of the eyeball with a dislocation of the iris under the conjunctiva without any external wound. After reporting this case, in discussing the subject he made the statement that it was the first time he had seen sympathetic ophthalmia follow without an injury of the external coats of the eye. It seemed to be the opinion of those present that sympathetic inflammations were not liable to follow unless there was an injury to the eyeball giving rise to perforation.

Dr. Cheatham will remember seeing a case recently which I have had under observation for several years. A young lady came to me three years ago with a small circumscribed spot of choroiditis which has gone on from bad to worse. The inflammation extended from the choroid to the ciliary body, producing extensive cyclitis; from that it extended to the iris, but the external tunics were still intact. When I first saw her an examination of the other eye showed one or two small spots on the choroid with one considerable sized spot extending far out just back of the lens. She began to have some little sensations referable to the outer eye—things looked steamy at times. She went on in this way for probably six months with the sight of the other eye remaining as good as formerly. Meantime she went to Chicago and consulted

her brother (an oculist), who saw the case at about the time when the inflammation was worse in the first eye; he sent her back here and asked me to take charge of the case and institute any treatment I thought necessary. I did not look upon the case very favorably, and thought she would probably lose the eye. A month or six weeks afterward the patient decided to have the eye removed. I took the eye out. The other eye is just about the same as before.

If the teachings with reference to the cause of sympathetic ophthalmia are correct, it would seem that it is impossible for this condition to occur unless there is a rupture of the eyeball.

In regard to enucleation during panophthalmitis, I have done this in two cases, and the patients seemed to do just as well as they would under other circumstances. I know objections have been raised to the procedure, but I would not hesitate to enucleate the eye during panophthalmitis if the indications of the case demanded it.

Dr. Cheatham: Referring to the case which Dr. Ray states I saw with him, where the patient had cyclitis and iridochoroiditis, books state that the thing which produces sympathetic ophthalmia is disease of the ciliary body. That patient certainly had a diseased condition of the ciliary body.

To show that Dr. Ray is mistaken in his remarks in reference to Dr. Knapp's paper and discussion of the same, I will read the following extracts from that paper and discussion, from the transactions of the Society before which the paper was read:

Dr. Knapp: That this accident, twenty-five days after the injury, led to the development of typical sympathetic ophthalmia is not unprecedented, if the cases of sub-conjunctival dislocation of the lens are included in this class of injuries.

Dr. O. F. Wadsworth, Boston: I should like to speak of a case which was a very melancholy one, and which occurred some ten or twelve years ago. In this case a spit-ball blown from a toy gun ruptured the sclera in the ciliary region without rupture of the conjunctiva, so far as I could make out. The boy was twelve years of age and an only son. . . . He came the next day after looking out of the window at the bright sun. There were numerous dots on the membrane of Descemet, the pupil was sluggish, and atropine showed posterior synechiæ. The other eye was enucleated the same afternoon, but he lost sight in the remaining eye within a couple of days. There had apparently been no wound in the conjunctiva and no tenderness on pressure.

Dr. J. F. Noyes, Providence, R. I.: I wish to relate the history of another case in which I was in doubt what to do. A young man playing baseball

was hit by the ball on the cheek bone and stunned, but I did not see the case until three weeks afterward. He then came on account of failure of vision in the eye on the injured side. I also found symptoms of sympathetic trouble in the other eye. I advised enucleation of the first eye, but to this he did not consent. He became totally blind, but neither eye showed any great amount of inflammation. The question arises whether or not the second eye would have been saved if the first had been removed.

Dr. Herman Knapp, New York: With regard to this case there was an unbroken conjunctiva. There are in the whole realm of literature only a few of these cases where sympathetic trouble followed where there was an unbroken conjunctiva. . . . Sympathetic ophthalmia following a non-penetrating wound is so rare that Boé gives the rule that under no condition need an eye be removed where there is no external injury. That was the case here. I do not think that any one of you have seen sympathetic ophthalmia without an external lesion of the eyeball. It is a process of bacterial origin. Nevertheless there are six cases, and this is perhaps the seventh, where there was no external injury.

Dr. Samuel Theobald, Baltimore: Dr. Knapp has stated that there are only six cases recorded of sympathetic ophthalmia following injury to the eye without external wound. This, perhaps, may be true, but I think that there have been many cases reported of sympathetic ophthalmia where there has been no wound at all, where there has been inflammation of the ciliary body or deeper structures of the exciting eye without traumatism.

Dr. Noyes: Will Dr. Knapp explain the case I have just reported where the blow was received on the cheek without injury to the eye, and there was little or no appearance of inflammation in the eye, yet sympathetic trouble followed?

I have certainly seen cases where there was no injury to the eye and yet sympathetic ophthalmia developed. I still believe that it is possible for this condition to occur without an opening in the eyeball.

Dr. Dabney: Homer, of Zürich, whose clinical experience in this direction was probably as great as that of anybody in the world, made the statement that sympathetic ophthalmia possibly may occur without an opening in the eyeball, but these cases or instances are very rare. He is in full accord with the theory that these cases are microbic in origin, but states that they may occasionally occur without an opening in the eyeball which can be detected.

Dr. A. M. Cartledge (Abdominal Tumor): This patient is Mr. H., aged forty years; a farmer. He has an abdominal growth or displaced viscera, but which I am not yet able to say. The enlargement was first noticed when he was eleven years of age, while being treated during an attack of typhoid fever. Prior to this he received a severe kick about the

center of the abdomen (when seven years old) by a mule. When twenty-two years old he suffered with an attack of what was termed congestion of the liver and stomach. He was in bed between three and four months, and was an invalid for a year subsequent to that time; had hemorrhage from both the stomach and bowels on that occasion. After that he occasionally, especially during the summer, suffered from severe bilious attacks, so called. When thirty-two years old he had the second one of these attacks of congestion of the liver and stomach. Three years ago he had an attack of decided jaundice. Since he was eleven years old he says that he has never been able to do any work requiring him to bend over on account of the soreness which has always been present and the inconvenience caused by assuming a stooping position, and at times would have this uncomfortable soreness when not attempting to stoop.

The latter part of July I was called to see Mr. H., suffering from intense abdominal pain, which was very vague as to its seat. There was some little constipation, but the attack had come on with great nausea and vomiting. In examining the abdomen I discovered this enlargement and called his attention to it. There was considerable swelling of the abdomen, tympanites and pain, requiring the administration of morphine for its relief, lasting for about twelve hours. There was some jaundice during this attack, but no special tenderness referable to the region of the liver. The greatest point of tenderness was immediately over this enlargement. After resting a few days in bed he was able to get up and walk about, but in August had a recurrence of the pain. He recovered from this attack very slowly; the jaundice, however, quickly cleared up, and after two months' sojourn at several watering-places he finally got back to his normal condition. Since that time his health has been fair; he has not lost much in flesh, but still has this tenderness on bending, and the question in the case is simply one of diagnosis as to the nature of the trouble. There is one point which may be of some diagnostic value and of some assistance: For a number of years he remembers distinctly that this enlargement was possessed of great mobility, which has been gradually diminishing until at the present time it is more or less fixed in its situation.

DISCUSSION.

Dr. J. A. Larrabee: From the examination I made of this case I believe it is a detached or wandering spleen caused by the kick of the mule.

Dr. J. W. Irwin: I find that there is no dullness on percussion in the region of the spleen, or where the spleen ought to be, but there is dullness on percussion over the left kidney and over the region of the liver. I believe it is a displaced spleen, and that it is attached to the mesentery. The hemorrhages that he has had and other troubles may be readily explained by the enlargement of this organ and its dislocation.

Dr. J. B. Marvin: The tumor is certainly behind the gut; it is not the shape of a kidney, and I am inclined to the opinion that it is the spleen.

The essay was read by Dr. J. Morrison Ray; subject, "Adenoid Growths in the Dome of the Naso-Pharyngeal Space, with Particular Emphasis upon their Influence on the Ear Diseases of Childhood." [See page 369.]

DISCUSSION.

Dr. Cheatham: The paper is such a thorough review of the subject up to date that there is very little left to be said. I would like to add to the paper that diseases of the ear are the most serious complications or dangers from adenoid growths. Another serious feature is obstructed respiration. The nose is not only intended for olfactory purposes, but also for filtering the air and rendering it more moist. It is said that even the coldest atmosphere, passing through the nose, by the time it reaches the larynx is heated to nearly the body temperature. Unless the air is filtered and heated, and unless it is rendered properly moist when it enters the lungs, it is impossible for the proper interchange of gases to take place, as between oxygen and carbonic acid gas. So the question of removal of adenoid growths is not only important from the fact that they are frequently the direct cause of ear troubles, but it is also important in order to secure nasal respiration. Air entering the lung through the mouth, cold, not moistened, not filtered, makes it quite impossible for the proper interchange of gases to go on.

I differ with Dr. Ray in regard to anesthesia. I do not think I have ever given general anesthesia to remove growths of this character. I put a gag or cork in the mouth, get some one to hold the patient, then, under local anesthesia, removal of the growths can be easily and quickly accomplished. I am afraid of general anesthesia in these cases since I saw a death in the London Hospital resulting from this, where a child was to be operated upon for adenoid growths.

Dr. Dabney: Referring to Dr. Cheatham's remarks, I differ with him in regard to the anesthesia. In young children we ought to give chloroform. I recently operated upon a child who had been operated on in another city for adenoid growths without anesthesia, and I found quite a large mass remaining, which was thoroughly removed with the curette under anesthesia.

As regards age, I have operated upon children two and three years old, and a number from fifteen to twenty years old. In older children, or half-grown people, I am in the habit of drawing the palate forward by means of the palate retractor, then passing a curved probe around it and applying cocaine with a pledget of cotton (not the spray). Removal may sometimes be accomplished without general anesthesia.

I believe it to be a fact that many cases, such as Dr. Ray describes, are overlooked; they may present symptoms not quite so marked as he mentions; there may be no ear symptoms and not much mouth-breathing. I recall one just now: A child was brought to me with a symptom which has not yet been mentioned, vomiting in the morning before and sometimes during breakfast. He also had obstructed breathing. An examination with the finger showed that there was a mass of adenoids in the roof of the mouth. They were scraped away, and as a result the vomiting, obstructed breathing, and all symptoms were relieved. The vomiting was probably caused by the mucus and discharges which had accumulated about the adenoids over night and was loosened by the warm food at breakfast.

Suppuration of the middle ear may often be the result of adenoid tissue in the roof of the mouth. I recently operated upon two such cases in the same family. It is my custom to always make a thorough examination and search for adenoids in every case of suppuration of the middle ear, and in operating for these growths in small children I invariably give chloroform.

Dr. Larrabee: From the standpoint of the general practitioner the statement made by the essayist, that a spontaneous cure may be looked for by arrival at adult years, would at first sight seem to lessen the importance of attending to it in childhood. That importance is increased, however, when we consider the consequences that may accrue from such conditions. I am satisfied that in my earlier practice I did not fully appreciate the condition under discussion, and saw many cases of incomplete development of the chest, and the prow or pigeon breast, and some with curvatures and deformities of the shoulders due to this

adenoid condition, which I did not then recognize. When we come to consider the consequences of improper breathing in children from three to fourteen years of age, just spoken of by the essayist, we find that, while the disease admits of spontaneous cure with growth and development, the consequences produced are not relieved.

I was somewhat surprised to learn that in the Johns Hopkins Hospital recently some thirty cases were found in the ordinary run of clinics operated upon for adenoids, the usual method being without instruments; the patients being young and the growths soft, they were removed with the finger nail. I am satisfied that the percentage spoken of by the essayist is in moderation. I believe these cases are more frequent than are recognized. One of the most noticeable symptoms of adenoid growths is the facial expression; if there is any thing that can be diagnosed by physiognomy it is the condition under discussion.

Dr. Marvin: I think the general practitioner in the city who does not look in the throat nowadays, as well as examining the mouths of all male children, has no excuse, as he has certainly heard enough about such conditions. There is one point that I think Dr. Ray did not make strong enough. It seems to me that we can make a second division very clearly in these cases, and in the worst class there is not only adenoid growths, but an arched palate, a narrow jawbone encroaching upon the fauces. That seems to be a more serious form, and more likely to be associated with pigeon or chicken breast than the other.

There is another point in regard to the etiology. Some months ago a child was brought to me for another trouble; a handsome little fellow, and I noticed that he had the habit of jerking his head back. Upon interrogating the mother she said he was born that way, that he had a "death-mark," she having seen a woman die while pregnant. Upon examination the trouble was found to be well-developed adenoid growths, the removal of which corrected the habit.

Dr. W. O. Roberts: I have had two cases of the nature under discussion, both of which were operated upon by Dr. Ray. The point brought up by Dr. Marvin, the narrow jawbone with arched palate, was very marked in one case, less so in the other. Both patients had trouble in the hearing, and in one of them the hearing was very markedly interfered with; not only was the child subject to frequent attacks of otorrhea, but it was accompanied with severe pain. Since the operation was performed there has been no trouble in any respect in either

case. In both cases there was a very marked improvement in the general health. In the case where there was a purulent discharge the mother could always tell when it was coming on by the fact that the ear would become very red; the next day it would have intense earache, then directly afterward discharge from the ear would be noticed. Chloroform was given in both cases, and I was struck with the ease with which the operation was performed.

Dr. J. L. Howard: The question that Dr. Roberts has brought up concerning the giving of chloroform in cases of this kind is of great interest to me. I have administered chloroform in six cases for removal of adenoid growths, rather two cases in which there were polypi of the nose and a great deal of hypertrophy in this region, and four cases of adenoid growths, and I have always had trouble in giving the anesthetic. I came very near having three deaths. I have probably given chloroform three hundred times for different operations, and have experienced no trouble except in the six just mentioned. It may be on account of the obstruction in this region, and I have never administered the anesthetic for this condition without a great deal of fear.

Dr. H. A. Cottell: About a month ago Dr. Ray operated for me upon a little boy three years old who had adenoid growths, and who had all the symptoms the essayist has so graphically described. I was particularly struck with the wonderful facility with which the operation was done. The patient was put profoundly under the influence of chloroform, and the adenoid vegetations were scraped out with such speed and facility as to excite my admiration. The operation was practically completed in a few seconds. Hemorrhage was free for a time, but soon subsided. I have seen the patient several times since, and I find the result perfect. It seems to me that an operation for the removal of such growths should not be undertaken without an anesthetic.

Dr. Ray: When I first commenced operating for adenoid growths I probably did about half my operations without an anesthetic. Where we have a child from nine to ten years old, rather tractable, the operation may be done without an anesthetic by means of the curette.

The specimen which I show you of adenoid growth was removed from a child eleven years old. The trouble dated back to an attack of diphtheria. When the child was five years old he suffered quite a severe attack of nasal diphtheria, and it was thought there was paralysis of the soft palate. It was treated by spraying, washes, etc., with little or no

benefit. The most marked symptom was mouth-breathing. I sprayed the throat with cocaine, and with the heart-shaped curette, which I show you, at the second attempt brought the adenoid growth away. In young children, two or three years old, I think it is always best to give an anesthetic, as the operation of necessity is somewhat painful. The rush of blood is usually quite free at first, but soon subsides, and I have had no after-effect whatever from the operation. I have very often removed these growths without the aid of any instrument, simply using my finger nail.

CONTINUED DISCUSSION OF APPENDICITIS.

Dr. Cartledge: At a meeting of this Society four weeks ago I exhibited three appendices, illustrating three stages of the pathology of appendicitis. The first was the result of an operation that day, the appendix showing a stenosis, commencing about half an inch from the base, with the extremity very much enlarged and distended with liquid feces. I split open the appendix in order to demonstrate the point of narrowing, which I thought was of considerable interest. Second, a necrosed stump where the appendix had almost entirely disappeared, and, third, a large perforated appendix. It seems that the appendix which was slit open excited the most discussion, the others having apparently been overlooked. In view of the various opinions held by members of the Society, I think the suggestion made by Dr. Vance, that we exhibit before this meeting such appendices as we may have preserved in order to illustrate the pathological conditions, an excellent one. I have accordingly brought twelve specimens for examination, which were all I could get hold of to-day. There were two or three other appendices that I wished particularly to present, but they could not be located in my hasty search among other specimens. One very pretty specimen, showing volvulus of the appendix with rupture, was lost in removal.

I have very little to add to what I have already said on the subject; the specimens themselves illustrate the different pathological conditions, and by an examination I believe you will all agree that all of them bear evidences of pathological conditions demanding operation. Perforation had occurred in nearly every case, as will be seen by the specimens, abscesses had formed in most of them, and pus was present in all except one; that was the case reported four weeks ago where there was stenosis and distal distension. Many of the patients had been subject

to recurrent attacks of undoubted appendicitis; a few were operated upon *in extremis*, others a few hours after the first symptoms developed. One case was treated several weeks for typhoid fever before diagnosis of appendicitis was made. In only one case, I believe, have I found fecal concretions, and have never encountered a foreign body in the appendix.

Dr. Turner Anderson: What has been your per cent of recoveries?

Dr. Cartledge: I have had twenty-two cases of appendicitis up to the present time with four deaths. This number includes cases of general septic peritonitis the result of appendiceal disease.

Dr. T. L. McDermott: Of the twelve cases represented by the specimens before us how many died?

Dr. Cartledge: Three died out of the twelve.

Dr. A. M. Vance: I have here eighteen appendices, part of which were removed by myself, the balance by Dr. W. C. Dugan. I will not take time to refer to the cases in detail with the exception of one or two. The specimens all bear evidence of a pathological condition demanding operation, and this I think will be apparent by even a casual examination.

At the last meeting of this Society the case of Mr. T. was mentioned by Drs. Anderson and McDermott. I would ask the privilege of reading the report of that case, which was made to this Society the day after the operation, and the discussion showing that pus was present, and the perforation in the appendix was seen by all those who witnessed the operation or subsequently examined the specimen. From report Medico-Chirurgical Society, March 17, 1893:

CASE OF APPENDICITIS; OPERATION; DEATH.

Dr. A. M. Vance: I was called by Dr. McDermott yesterday at three o'clock to see a gentleman, German, forty-nine years of age, very fleshy. He gave the history that in January he had some bowel trouble which yielded to castor oil and he recovered. In February he had another attack preceded by diarrhea which was relieved. For a week prior to the time Dr. McDermott was consulted (he was called sixteen hours before he asked me to see the case) the man had been feeling a little "out of sorts," but he thought it was an attack similar to those he had formerly suffered with and kept around attending to his business. At five o'clock Wednesday afternoon he was taken suddenly with great pain in the abdomen, and he got up stairs with difficulty and went to bed. Dr. George F. Simpson was called in and gave the man a hypodermic of morphine; Dr. McDermott came several hours later and found the man with marked symptoms of shock; he made

diagnosis then of probable appendicitis. It was necessary to administer more morphine on account of the severe nature of the pain; salines were given without result; pulse gradually increasing in frequency, temperature 103° F. at one time. I saw the patient at three o'clock yesterday; found temperature 101.5° F., pulse 120, abdomen very much distended, great rigidity of the abdominal muscles, considerable tenderness over the whole area of the peritoneum, tenderness being particularly referred, however, to the McBurney spot. We advised an operation at once. Drs. Roberts, Kelly, and Anderson afterward saw the case. Last night at seven o'clock the abdomen was opened; an incision was made between the anterior superior spinous process of the ilium and the umbilicus; the man was very fat, fully three inches of adipose tissue being encountered before the true wall was reached. As soon as the peritoneum was punctured pus came out in considerable quantities. With some little difficulty the appendix was found and removed. At the time of the operation the man's pulse was 128. The appendix was quite small, and as it was lifted out the distal end was torn and separated, but before it was torn Dr. Roberts and I detected a perforation about the size of a match in the lower portion. The two pieces of appendix have been carefully put together by Dr. Anderson, and you can plainly see signs of great localized congestion and make out the perforation. The appendix between this congested end and the cecum was very small and white. The man had general suppurative peritonitis, rupture having taken place probably at five o'clock day before yesterday afternoon, when the severe symptoms developed.

This instance shows how treacherous these cases are and how important it is to make early diagnosis if possible, so that relief may be obtained by surgical procedure. I have operated twice recently where perforation of the appendix was about to take place, and the patients recovered; I have operated twice where perforation had already taken place, and both patients died. This man died four hours after operation in shock. He secreted very little urine for several hours prior to operation, and two hours after the operation had been performed I catheterized the bladder and drew off about an ounce of urine; I examined it and found albumen.

DISCUSSION.

Dr. T. L. McDermott: Dr. Vance mentions two cases of appendicitis in which he operated before perforation took place, and in which the operation was successful, also two cases in which perforation had taken place which were not successful. This is the point I want to call attention to. I have had in the past week two or three cases of colic in which there was evidence of as much distress as this patient had. I have frequently had cases of colic in which there were symptoms apparently just as severe as have been found in cases where appendicitis has been made out and where peritonitis has followed, and it has been a serious question in my mind whether often in cases where appendicitis has been diagnosticated they were not purely

cases of colic. While this man had the general symptoms of appendicitis, still, owing to his having had several similar attacks and owing to the peculiar condition of the patient, I did not feel that I was justified in saying so positively and advising operation. I do not believe, if Dr. Vance had been present when I first saw the patient, he could have said positively that it was appendicitis. The question is whether it is wise to recommend an operation as serious as a laparotomy in cases that may prove to be nothing more than ordinary colic. I am sorry now, however, owing to the final outcome of the case, that Dr. Vance did not see the patient with me earlier in the attack; still, as I had treated this patient in several similar attacks, I had no reason to believe that relief would not follow ordinary treatment, as had been the case on previous occasions. How can we discriminate in these cases between ordinary colic and appendicitis when the symptoms are often identical? The responsibility is very great, and certainly it would be a mistake to go into the abdomen in ordinary colic. It is a serious question in my mind whether laparotomy is indicated in these cases. I do say frankly, however, that in the two cases upon which Dr. Vance operated I believe the result would have been the same with or without operation. While I am a little chaotic in regard to these cases, I believe in another case I shall summon consultation earlier, but in the case reported I do not think operation would have been successful had it been performed earlier. The operation was performed twenty hours after the seizure, four of which were necessarily lost in the attending consultations and subsequent preparations.

Dr. Turner Anderson: In the case reported I do not see how it would have been possible to have made a diagnosis that would have justified a laparotomy earlier than was done, especially as the patient was able to be up and attend to his business only a few days prior to his death, and further as he had been subject to frequent attacks of abdominal trouble which yielded promptly to ordinary treatment.

Dr. Vance: I do not believe it is ever possible to tell just exactly the condition we will encounter when the abdomen is opened, but I do think diagnosis can be made with sufficient accuracy to justify operation in nearly every case. Drs. Anderson and McDermott, in my opinion, have both laid too much stress upon the dangers of a laparotomy. It is now a well-established fact that laparotomy in competent hands and under favorable surroundings is a comparatively safe surgical procedure, and the operation performed last night, had it not been for the patient's serious condition, could have done no possible harm. Therefore, I think, in the not far distant future all of these cases will be operated upon in the stage that Dr. McDermott first saw this patient. I believe these cases ought to have the benefit of the doubt, and a laparotomy be done for the purpose of diagnosis; I believe that this will eventually be the practice.

In regard to the differential diagnosis, I would not be so presumptuous as to say positively in every case that I could tell exactly the conditions that would be encountered when the abdomen was opened, but I can not think of any thing else but perforative appendicitis or perforation of the

bowel owing to some other cause that would produce general peritonitis so quickly in the male except traumatism. Of course the perforation of typhoid fever is not considered in this case, as there is no such history. Dr. McDermott made the diagnosis of appendicitis when he first saw the patient, and I firmly believe if operation had been performed then the chances would have been very favorable for recovery.

In the discussion two weeks ago the question was asked as to how many cases of appendicitis had probably been treated by the different medical men in which the diagnosis was never perfected, the patients died, and the death ascribed to *peritonitis*? Dr. A. M. Cartledge and myself in the last few days have looked over the Health Officer's statistics and death reports, and we have found recorded in the last twenty-three years one hundred and sixty-eight deaths in males from acute peritonitis, the average age being twenty-eight years. Almost every prominent physician of Louisville has his name affixed to some of these death certificates. We surgeons claim we have the right to believe that the vast majority of these cases of acute peritonitis—so-called idiopathic peritonitis—in the young male, and a great proportion in females, are due to appendicitis, and I think this is a great argument in favor of surgical procedure in these cases. The physician does not know, or can not be absolutely certain, that he has a case of appendicitis until he sees the specimen, and the surgeon does not know positively.

Certainly the specimens before us are diseased appendices, and they would have caused death in every case had not operation been performed.

Dr. Cartledge: In making the investigation spoken of by Dr. Vance we excluded all cases of tubercular peritonitis, all cases of peritonitis in the female, and all cases where the peritonitis was said to have been the result of injury, and found, as has already been stated, one hundred and sixty-eight cases of acute peritonitis occurring in the male in the city of Louisville within the last twenty-three years, and the death certificate was so indorsed. From past experience it is our belief that a large majority of these cases were appendicitis.

Dr. McDermott: Referring to the quotation Dr. Vance has read from a previous meeting of this Society, perhaps it might be well to add a few words in explanation. I had attended the patient, Mr. T., in two previous attacks in which exactly the same symptoms had developed; if any thing he was more seriously ill than in this instance, and he had recovered under the ordinary anodyne treatment, opium, salines, etc.

I will state also that Dr. Simpson had been called in the last instance previous to my seeing the patient and had given a hypodermic of morphine, which masked the symptoms to some extent; but at that time I had supposed the trouble was an ordinary attack of colic. I visited him again the next morning, and as the temperature was elevated and he was so profoundly impressed, it then indicated to me that the trouble was more serious in character. Dr. Vance was then called in consultation, and the operation was performed shortly afterward. I feel that this patient had the benefit of an operation as early as any physician could have reasonably made a satisfactory diagnosis. While the shock was beyond what we would expect in ordinary colic, still I have seen patients much more profoundly impressed in renal colic, and with similar symptoms, who recovered without operation. The whole difficulty in these cases lies in the fact, as I stated in a paper read at the last meeting of this Society, of our being unable to make a satisfactory diagnosis. I have no doubt, if the diagnosis were made at once, if perforation had occurred with healthy structures surrounding it, if the surgeon were called to the case immediately and to operate, it would be the proper and only thing to do; but who is able to make such a diagnosis? In the case under discussion I believe the patient would have died in any event, and I further believe that if Dr. Vance had seen the patient earlier a satisfactory diagnosis could not have been arrived at sooner. While I was inclined to the opinion that it was a case of appendicitis, still there was an element of uncertainty about it, and I felt justified in waiting. Again, I had seen this patient get well in several previous attacks in which his suffering was seemingly equally intense, and had also seen numerous other cases having about the same line of symptoms which recovered without operation under the ordinary treatment. How can we discriminate in these cases?

I think the matter is still *sub judice*; and in writing my paper read before the last meeting of this Society I did so purely in the spirit of research, hoping that it might result in our getting at the bottom of the whole matter and formulating something definite in the way of indications for operation, etc. The only solution of the problem in my estimation is to enter into just such discussion as we have been doing, to tabulate each case in which operation has and has not been done, and the result will be a better understanding of the situation. Possibly in that way we may be able to illuminate the field that is now certainly in darkness in the medical mind.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Health of the British Isles; The Cancer Wards at the Middlesex Hospital; Lunacy in Ireland; State Aid for the Blind; Our Bakeries; Retirement of Mr. Durham; Diphtheria; Lockwood on Abdominal Section; The Cholera Congress, etc.

The Registrar-General's statistics continue to show the incorrectness of the popular notion connecting a mild winter with a bad state of public health, the tendency of all modern statistics being to show that warm winters and cool summers are favorable and cold winters and hot summers unfavorable. The weekly returns prove that the mortality in the thirty-three great towns of England and Wales during the first three months of the year has been much below what is usually experienced in this country. Influenza has not yet entirely disappeared, nearly two per cent of the deaths of the quarter were attributed to it. The towns included in the returns have an aggregate population of nearly 10,500,000, the death-rate being 21 per 1,000; out of the thirty-three towns no less than eighteen, including such places as Blackburn, Leeds, Newcastle, and Sheffield in the north, and Cardiff and Swansea in the west, had a death-rate below 20. Croydon, Portsmouth, and Derby were lowest with rates between 16 and 17, while the highest figures were under 26 at Liverpool and Norwich, and 28 at Plymouth. For London the rate was 21.2, compared with 23.6 for the same months in 1890, 24 in 1891, 28.1 in 1892, and 22.1 in 1893. The most unhealthy city in the Kingdom appears to be Dublin, where, with a population only about a twelfth of that of London, the weekly death-rate has ranged between 25.8 and 42.5, giving an average for the quarter of 31.5, exceeding that for the metropolis by more than 10 per 1,000, and 3.5 per 1,000 above the highest of the English rates.

The Prince of Wales has promised to preside at a Festival Dinner of the Middlesex Hospital, with the especial object of appealing to the benevolent for funds to enable additional provision to be made for cancer patients. The Middlesex Hospital is unique in its care of cancer cases. Not only does it receive in ordinary course sufferers from this disease, but when their cases are hopelessly incurable continues to them all the advantages of hospital treatment. They thus find a permanent refuge, where every thing is provided for the alleviation of their sufferings. It is now proposed to erect new accommodations for female cancer patients, of whom it will then be

possible to admit a considerably larger number than at present, the male patients remaining in their present quarters.

It appears that there has of late years been a decided increase of lunacy in Ireland. In England, with a rapidly increasing population, proportionate increase of insanity is to be looked for, but not in Ireland with a decreasing population. In 1881 there were 9,774 lunatics, and in 1891 the number had risen to 14,945. In the year 1851 there was 1 lunatic to every 667 of the population, in 1861 the ratio had risen to 1 in 411, in 1871 it was 1 in 328, in 1881 it was 1 in 281, and in 1891 it had got as high as 1 in 222. In the County of Meath the ratio was 1 in 126, which is thought to be the highest ever reached in any country. In County Down it was 1 in 333, which approaches very closely to the English ratio, viz., 30.21 in 10,000 of the population.

A new movement has been formed with the object of obtaining State aid for the blind. Its cause is that there are 28,000 dependent blind in the United Kingdom. To help these there are 156 institutions, with investments bearing an interest of £60,000 per annum. Yet there are 5,000 blind receiving out-door relief, and 3,278 blind women and men in the work-houses, while the number who earn a precarious livelihood by selling matches and laces, or by singing in the gutter, is of course very great. The appeal of the National League of the Blind is that all blind persons should be registered and placed under some central authority, with power to find them employment enough to keep them from starving. Particularly they desire Government inspection of all existing institutions, as only a very small proportion of the blind are receiving relief from the endowments.

A report by Dr. Waldo, published by the Sanitary Institute, as to the condition of London bake-houses is not pleasant reading. Dr. Waldo has discovered that half the bread supplied to Londoners is produced in cellar bakeries. The typical cellar where the men toil is an ordinary basement cellar 6 feet or 7 feet high and some 20 feet or 30 feet long by 10 feet or 12 feet in breadth. The flour is at one end of the bake-house, the oven at the other, with a loose heap of coal close by. Along the sides are the kneading-troughs, while "in the darkest corner stands a kind of open cupboard in which the water-closet is placed." Dr. Waldo proceeds to explain how sewer gas enters through defective soil pipes, and how in low-lying districts the sewage forces its way into the bake-house in times of heavy rainfall. Ventilation there is none, the conditions absolutely forbid it. Vegetable matter decays and accumulates, and vermin of all kinds breed happily in the moist and sweltering climate of the London bake-house. As to the flour, it must of course take its chance. The condition of the bakers themselves, it follows as a matter of course, is deplorable in such surroundings. The report states that there are upward of 18,000 bakers in London, a large proportion of whom are working under these conditions. In the poorer neighborhoods their hours are from 80 to 100 a week, elsewhere they average 72. Speaking of the physique of a typical workman, Dr. Waldo

says his face is thin and pale, his shoulders are rounded, and his whole look suggestive of chronic ill health. He is exposed to damp and to great and sudden changes of temperature, and he habitually breathes an atmosphere which is charged with dust, with the fumes of coal, with the products of respiration, and not unfrequently with actual sewage contamination.

Mr. Durham, F. R. C. S., paid his last official visit to Guy's Hospital recently and received quite an ovation from the students. He was afterward entertained at dinner by about a hundred of his past and present pupils at Guy's, who had collected from all parts of the country to do honor to their teacher. Mr. Durham appeared much gratified at the presence of so large a number of former pupils. The proceedings were of an enthusiastic character throughout.

Diphtheria in the stomach has been described by Dr. Trenwick, in the case of a child of three years, who had suffered from croup. Dyspnea coming on, tracheotomy was performed, but death followed next day. At the *post-mortem* examination primary laryngeal diphtheria was found extending into the finer ramifications of the bronchial tubes, the tonsils, pharynx, and esophagus being free from the disease, but the stomach was entirely lined with membrane, extending into the pylorus a distance of one third of an inch.

The Ameer of Afghanistan has sent for Miss Lilian Hamilton, M. D., to proceed to Cabul on a six months' appointment. Miss Hamilton has for some years been in charge of the Lady Dufferin Hospital, Calcutta.

Mr. Lockwood, of St. Bartholomew's Hospital, is in favor of incision through the linea alba in most cases of abdominal section; he considers it a great advantage in the event of collapse to be able to close the wound rapidly by a single row of sutures. Especially he prefers the incision through the linea alba in explorations in cases of obstruction of doubtful nature. Where there was obstruction the passage of flatus was a good sign, he never having seen an abdominal case go to the bad in which it had taken place; on the other hand he despaired of cases in which there was much abdominal distension.

The principal medical officer of health to the Local Government Board, Dr. Thorne Thorne, has been for the last four months in Paris representing Great Britain upon the International Sanitary Conference, endeavoring to secure a universal treaty in regard to precautions against cholera. It is stated that the result of the conference has been embodied in suggestions that must benefit all nations by stamping out or isolating cholera, their proposals having already received the assent of the majority of European governments. It is hoped the plan of campaign will be eventually universally adopted.

The one hundred and twelfth festival of the Edinburgh Harveian Society will be held during the month in the hall of the Royal College of Physicians of Edinburgh. The presidential address will be on "Harvey and his Work," after which the members will dine together.

Pediatrics.

Under the Charge of Henry E. Tuley, M. D.

CONVULSIONS AND RICKETS IN YOUNG CHILDREN.—A late Review of *Insanity and Nervous Diseases* contains an interesting translation by Dr. Kaumheimer, on the mutual relation of tetany, rickets, and laryngeal spasm, or spasm of the glottis in childhood, something which deals with a subject that is not fully appreciated or understood until one is brought in contact with a case. Of the many works on diseases of children that are used as text-books, none contain as lucid or as graphic a description of this condition as the really classic work of West.

In these days of bottle-raised infants the disorders that arise from malnutrition, and which often drift into tetany and rickets from the latter cause, are more numerous than one might at first imagine. Kassowitz, in the above translated paper, observes that laryngeal spasm is found almost exclusively in children who present unequivocal symptoms of active rickets, and he finds it to be more prevalent in the winter and spring months. In this connection Kassowitz calls attention to the nervous disturbances found in rickety children, such as insomnia, localized sweating of the head, starting at slight sounds, expiratory apnea and spasm of the glottis, and generalized convulsions. The former symptoms precede the convulsions in rickets, and the family physician can not too urgently insist upon the need of a better general hygiene—which includes the very important and the all-powerful question of a proper diet—upon noticing any or being told of the presence of the premonitory symptoms that warn us of the danger of a general convulsion from this cause. In some children there is at the outset an hyperexcitability of the facial nerves, while in others we have observed a peculiar dry cough, such as ushers in the incipency of Potts' disease of the spine.

In a general way a child is well under way in the disease before the parents consider its condition sufficiently important to call in a physician. In most cases the physician is really not called until violent convulsions have occurred. The physician may reach the patient during a convulsion, and it is then that he must bear in mind the connections that exist between laryngeal spasm and rickets and the condition he is called to attend. The parents and neighbors will have probably concluded that it is a case of worms, but in a case of convulsions due to rickets we must at once assure ourselves as to their real cause, as an entirely different plan of treatment must be pursued. Kassowitz places his main dependence on phosphorus. Cod-liver oil—not the emulsions, but the pure oil—administered both internally and externally, has proved a valuable remedy in our hands. West advises cod-liver oil and iron, careful dieting, and change of air. During the convulsion, cold—ice if procurable—applied to the head, and

chloral with bromides are the appropriate remedies; at the same time the bowels should be freed of any irritation by enemata. As before said, however, the parents and the physician should at once look into the child's condition upon the first appearance of any of the premonitory symptoms that denote that the child is drifting into rickets, and not wait for a convulsion. The physician called when a child is in convulsions should well differentiate between the various causes that tend to produce convulsions, and he should be on the lookout for rickets.—*National Popular Review*.

EFFECT OF CLIMATE ON THE DEVELOPMENT OF CHILDREN.—This is the title of a paper by Dr. T. C. Duncan in a late *American Climates*, which is of interest to climatologists generally. In the course of the paper he observes that physicians, who have made special observations on the difference between American and English children, report that the latter are more substantial, thickset, and less bright and active. Dr. Duncan attributes this difference to climate; England being more rainy and cloudy, and America more sunny and drier. American children are certainly more nervous from our drier atmosphere. Much of the apparent great composure of the English child is, however, an inherited as well as an acquired and cultivated sociological trait, not at all dependent upon the climate. Association has here a wonderful contagious effect. We all know that gesticulations, shrugging of the shoulders, and facial mobility during conversation, are supposed to be peculiarly Gallic accompaniments, and yet we have repeatedly seen reserved and taciturn Americans—a kind of a cross between the solemnity of our Puritan fathers and the stolidity of a Blackfoot or of a Sioux—grimace, gesticulate, curve his back and hump his shoulders, wink and blink like a Marseillaise the moment he acquired a fluent use of Spanish. Americans residing in England soon become more sedate, and American boys educated in England or France soon acquire more staid actions as well as a more staid form of expression in their speech, without losing any of their brightness. The moister air of England or of western Europe tends, however, to giving American children a more substantial body; they round out better and are not as restless as they are at home.—*National Popular Review*.

THE EFFECT OF KNOTS OF THE UMBILICAL CORD ON THE FETAL CIRCULATION (*Arch. Clin. de Bordeaux*, 1893).—Dr. R. Lefour has made some interesting experiments on the influence which knots on the cord have on the fetus. He comes to the conclusion that Cazeaux's statement that they never bring about the death of the fetus must be accepted. In the majority of cases, however, they have, thanks to the energy of the heart, no noteworthy influence on fetal vitality. It is more likely that a fatal result will be brought about if the influence of the knot is increased by that of compression exercised upon it. Death may be due either to simple mechanical obstruction in the funicular circulation or to a thrombosis following this vascular alteration.—*Edinburgh Medical Journal*.

THE AMERICAN PRACTITIONER AND NEWS.

"NEC TENUI PENNÂ."

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SATURDAY, MAY 19, 1894.

No. 10.

D. W. YANDELL, M. D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

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JOHN P. MORTON & COMPANY, Louisville, Ky.

THE STATE MEDICAL SOCIETY.

The thirty-ninth annual meeting of the Kentucky State Medical Society will be held at Shelbyville on the 6th of June, and from all the indications there is reason to anticipate a more than usually successful gathering.

The people of Shelbyville have been long famed for their hospitality, while its physicians compare favorably with those of any other city in the State.

What with the central position of the place of meeting, the excellent programme, and the indications of warm welcome, the meeting will be doubtless one of the best attended in the history of the Society, notwithstanding the stringency of the times.

The American Practitioner and News will as usual be on hand with its force of reporters, and our readers will be supplied with a full report of whatever transpires that is instructive and interesting. Arrangements have also been made to publish most of the papers to be read before the meeting, and they will in the near future be laid before our readers.

The following is the list of officers and programme of the meeting :

OFFICERS FOR 1894—J. Q. A. Stewart, M. D., Frankfort, President; O. D. Todd, M. D., Eminence, First Vice-President; C. D. Mansfield, M. D., Stanton, Second Vice-President; Steele Bailey, M. D., Stanford, Permanent Secretary; J. B. Kinnaird, M. D., Lancaster, Treasurer; Frank Boyd, M. D., Paducah, Librarian; J. M. Harwood, M. D., Shelbyville, Chairman Committee of Arrangements.

BOARD OF CENSORS—J. G. Brooks, M. D., Paducah; J. Smith, M. D., Hammondsville; B. F. Eager, M. D., Hopkinsville; O. F. Cash, M. D., Moorefield.

COMMITTEE OF PUBLICATION—L. S. McMurtry, M. D., Louisville; J. B. Marvin, M. D., Louisville; J. A. Larrabee, M. D., Louisville; H. A. Cottell, M. D., Louisville.

ORDER OF PROCEEDINGS.—FIRST DAY, WEDNESDAY: AFTERNOON SESSION, 2 O'CLOCK P. M.—(1) Call to order by the President, John Q. A. Stewart, M. D., Frankfort; (2) Prayer; (3) Address of Welcome, by Hon. P. J. Forsee; (4) Report of the Committee of Arrangements; (5) Report of the Treasurer; (6) Report of the Permanent Secretary; (7) Report of the Committee on Publication; (8) Applications for membership; (9) Miscellaneous business, communications, etc.

Acute Lobar Pneumonia, its Etiology and Pathology, by J. B. Marvin, M. D., Louisville; The Treatment of Acute Lobar Pneumonia, by John A. Lewis, M. D., Georgetown; Discussion to be led by Dr. J. A. Ouchterlony, Dr. William Bailey, and Dr. P. F. Barbour, of Louisville; Conservative Gynecology, by Dr. Julia Ingram, Louisville.

EVENING SESSION, 8 O'CLOCK P. M.—President's Address: The Education, Training, and Medical Treatment of the Feeble-Minded, by John Q. A. Stewart, M. D., Frankfort; Popular Address: "We are Approaching the Truth," by Hon. G. G. Gilbert, Shelbyville.

After the close of the evening session a reception generously tendered by the Shelby County Hop Club will be held at Layson Hall, at 9:30 P. M., to be followed by dancing in the ball-room.

On Thursday evening a banquet given by the profession of Shelbyville will be spread at Layson Hall. Tickets will be furnished by the Committee of Arrangements.

SECOND DAY, THURSDAY: MORNING SESSION, 9 O'CLOCK A. M.—Miscellaneous business, limited to one hour; Dissertation, Appendicitis—Varieties and Pathology, by A. M. Cartledge, M. D., Louisville; Diagnosis, by Fayette Dunlap, M. D., Danville; Determination of Operative Interference, by A. M. Vance, M. D., Louisville; Operative Technique, by H. Horace Grant, M. D., Louisville; Discussion to be led by Dr. L. S. McMurtry, Dr. W. O. Roberts, Louisville, and Dr. J. N. McCormack, Bowling Green; Traumatic Peritonitis in Children, by Harry I. Cowan, M. D., Danville; Treatment of Inoperable Sarcoma with the Toxic Products of Erysipelas, by Dr. W. B. Coley, New York City; Report of Cases (exhibiting patients), by W. L. Rodman, M. D., Louisville—(1) Pneumonotomy, (2) Barton's Operation for Ankylosis of Knee in bad position, (3) Resection of Shoulder; Syphilitic Diseases of the Eyes, by Dudley S. Reynolds, M. D., Louisville; The Advantages of the Western Plateau in the Treatment of Pulmonary Diseases, by S. D. Swope, M. D., Marion; Dysentery, its Etiology, Pathology, and Treatment, by J. Edwin Caldwell, M. D., Perryville; Colonic Dyspepsia, by Thomas Hunt Stucky, M. D., Louisville; Cysticercus of the Eye, with a case, by William Cheatham, M. D., Louisville; Leprosy, by C. B. Schoolfield, M. D., Dayton.

AFTERNOON SESSION, 2 O'CLOCK P. M.—The Larva (*Echinococcus*) of *Tænia Echinococcus*, report of case, by Dr. Joseph M. Mathews, Louisville; Fifty-one Consecutive Abdominal Sections, with remarks, by L. S. McMurtry, M. D., Louisville; Membranous Croup, with report of cases, by W. Carroll Chapman, M. D., Louisville; Acute Laceration of the Perineum, by J. G. Carpenter, M. D., Stanford; Cystic Tumors of the Ovary and Broad Ligament, by W. H. Wathen, M. D., Louisville; The First Assistant in Abdominal Surgery, by William Redin Kirk, M. D., Louisville; Adenoid Growths in the Vault of the Pharynx, by H. H. Roberts, M. D., Paris; Pelvic Disease and its Relationship to Insanity in Women, by John Young Brown, M. D., Lakeland; Fistula in Ano, by J. N. Baughman, M. D., Flat Lick; Tonsillar Hypertrophy, by T. C. Evans, M. D., Louisville; What is the Most Frequent Location of Cervical Lacerations when Exceeding the First Degree? by George E. Davis, M. D., Salvisa; Anesthesia for Examination of the Rectum, Sigmoid Flexure, and Lower Colon, by W. O. Green, M. D., Louisville.

EVENING SESSION, 8 O'CLOCK P. M.—Obstacles to be Met in Elevating the Standard of the Medical Profession, by J. N. McCormack, M. D., Bowling Green; How Loug,

under Certain Conditions, can the Longevity of Man be Maintained, by T. B. Greenley, M. D., Orel; Nephrectomy for Sarcoma, by W. O. Roberts, M. D., Louisville.

THIRD DAY, FRIDAY: MORNING SESSION, 9 O'CLOCK A. M. Election of officers; Miscellaneous business, limited to one hour; Contagious Eye Diseases and Preventable Blindness, their Etiology and the Methods for their Prevention, by J. Morrison Ray, M. D., Louisville; The Pathology and Treatment of Purulent Inflammation, by Crittenden Joyce, M. D., Louisville; Discussion to be led by Dr. William Cheatham, Dr. S. G. Dabney, and Dr. T. C. Evans, of Louisville; Perineal Section - external - without a Guide, by B. F. Herndon, M. D., Barboursville; Relations of the Diseases of the Air-Passages to the Eye and other Organs, by J. G. Carpenter, M. D., Stanford; Report on the Naso-Pharynx, by George E. Davis, M. D., Salvisa; Abuses of Proprietary Remedies, by H. H. Roberts, M. D., Paris; Obituary of Matthew T. Scott, M. D., by Lyman Beecher Todd, M. D., Lexington; Report: Plan for Organizing a Medical Society in each County of the State, Auxiliary to the State Society, by J. N. McCormack, M. D., Chairman, Bowling Green; Consanguineous Marriage the Predisposing Cause of Tuberculosis, by Dr. John G. Birchette, Cropper.

Notes and Queries.

DR. C. B. KIBLER, of Corry, Pa., read a paper before the Erie Railroad Surgeons Association, giving a new method of skin-grafting. He cites the following cases:

Case 1. In October, 1889, J. L., a lad of twelve years, in attempting to jump from a moving train fell under the wheels and had the soft and bony parts of his right hand crushed thereby. Efforts were made to save the hand, but some five days afterward I was called in to amputate on account of sloughing. The thumb retaining some life, the hand was disarticulated at the carpo-metacarpal joint, saving the thumb, but leaving a surface of about twenty-four square inches entirely devoid of skin.

His mother earned her daily bread as a washerwoman. Her hands, from her daily avocation, had become much calloused, and it was from this thick and indurated epithelial tissue that I obtained what proved to be most excellent material for grafting. Small pieces about an inch square, very thin, in fact not much thicker than tissue paper, were sliced with a sharp scalpel from the callosities of the palmar surface of his mother's hands. The granulations were first washed with a ten-per-cent solution of creolin in warm water. The surfaces from which the grafts were obtained were treated in a similar manner; the grafts, from six to ten in number, were then applied to the raw surface and covered with protective, which was held in place with rubber plaster; the remainder of the wound was powdered with boracic acid, the whole covered with moist gauze, absorbent cotton, and lastly a crinoline bandage. The dressing was changed every three or four days, being completely removed, and new grafts applied upon a new field of raw surface.

About eighty per cent of grafts adhered and formed true skin covering. One peculiarity it will be well to call your attention to, and that is, the grafts must be applied precisely as they are cut off, for if you should reverse or turn them over they will not grow. Seemingly, the vitality is thereby entirely destroyed. This hand was covered with skin in about four weeks' time.

Case 2. My next opportunity for applying this method of grafting occurred shortly after the above case. Mr. K., aged sixty-three, had a tank of boiling water emptied upon his neck, back, arm, and forearm, entirely destroying four hundred square inches of true skin. This was completely covered after the method above detailed, it requiring nearly four months to complete the cure, with very little contraction from cicatricial tissue.

Case 3. Mrs. T., aged fifty-six: large indolent ulcer of left leg. The ulcer was about three by six inches in size, of three years' standing. The surface was denuded with a scalpel before applying the grafts; five weeks was required to complete a perfect cure.

It will not be deemed necessary to occupy your time in detailing the results in some sixty cases of ulceration, principally of the extremities, treated by this method, many of them the result of crushing injuries, such as we often find in railway employees.

The advantages of this method over the use of skin, either in large or small patches, consists in the fact that there is no pain, and no raw surface left upon those who furnish the material, that the supply from the hands of those whose avocations produces the callosities is daily renewed, and no discomfort in any way is produced by removing the thin slices of tissue from the thickened epithelial surface, that from three to six or more grafts can be obtained from the same surface every three or four days without the subject suffering the least inconvenience. At the same time it is entirely bloodless. No local anesthetic is required. A much greater number or percentage of the grafts unite than in any other method, for in my hands and in others more than eighty per cent of grafts have united and formed true skin. An abundant supply of material is to be obtained at all times without any coercion, for if it can not be obtained from the palmar surface of the hand no trouble will be experienced in procuring it from the plantar surface of the foot, since callous epithelial tissue can be obtained from the foot of almost any person.—*International Journal of Surgery.*

DR. EDWARD MARTIN, of Philadelphia, after investigating different remedies and methods of treatment of gonorrhea in a large number of cases, says: Concerning the conclusions which this series of observations seemed to justify, the following is a *resumé*:

1. The abortive treatment of gonorrhea by means of a ten-per-cent solution of nitrate of silver injections applied to the navicular fossa is advisable when the disease is seen in its earliest stage, that is, when inflammatory phenomena are absent, and when the symptoms consist in the slight, whit-

ish discharge and tickling or moderate burning on urination, and when microscopic examination of the discharge shows that it is made up mainly of mucus and epithelium containing little pus. This abortive treatment is successful in an uncertain percentage of cases. When it fails it does not materially complicate the subsequent course of gonorrhea.

2. When gonorrhea is first seen in its florid stage, in addition to ordering rest, light diet, regular evacuation of the bowels, free drinking of plain waters, hot baths on retiring, alkaline diuretics, and the treatment appropriate to ardor urinæ and chordee, balsams should be given in full doses, and mild antiseptic irrigations or injections should be practiced at once. The most efficient balsams are sandal-wood and copaiba. These should not be pushed to the point of disordering the stomach.

He uses capsules, each containing:

R	Balsam copaiba,)	āā	℥ v;
	Oil sandal-wood,)		
	Oil cinnamon,		℥ j.

Of these he gives six to twelve per day, administering them one hour after meals.

3. Irrigation of the urethra by means of hot antiseptic lotions gives better results than any other treatment. These should be continued either once or twice a day until gonococci disappear from the discharge or from the clap shreds found in the urine. They should be displaced by astringent injections.

4. When irrigations can not be employed, even during the florid stage, injections are indicated; these should be of bichloride of mercury 1 to 20,000 or nitrate of silver 1 to 10,000. These injections should be gradually strengthened as urethral tolerance is established.

5. Injections of nitrate of silver, 1 to 3,000, or bichloride of mercury, 1 to 1,000, or injection Brow, or any of the formulæ customarily used in practice in the increasing or florid stage of gonorrhea, distinctly predispose to the development of hyperacute posterior urethritis, epididymitis, and other complications of gonorrhea, and may aggravate and prolong urethral inflammation. Strong astringent injections employed in the early period of the subsiding stage are equally dangerous.

6. Treatment by internal medication alone is followed by a small percentage of epididymitis and posterior urethritis, but by slow cure. The most efficient treatment consists in the combination of the balsams with local antiseptic washings.—*Therapeutic Gazette.*

PROFESSOR BILLROTH AS AN OPERATOR.—The general public not unnaturally assume that a great surgeon is necessarily a most skillful operator, a mistake not infrequently made by the profession also. Ingenuity, however, and boldness in devising operations are very different attributes from the manipulative skill, decision, and tact required to carry them out. Pro-

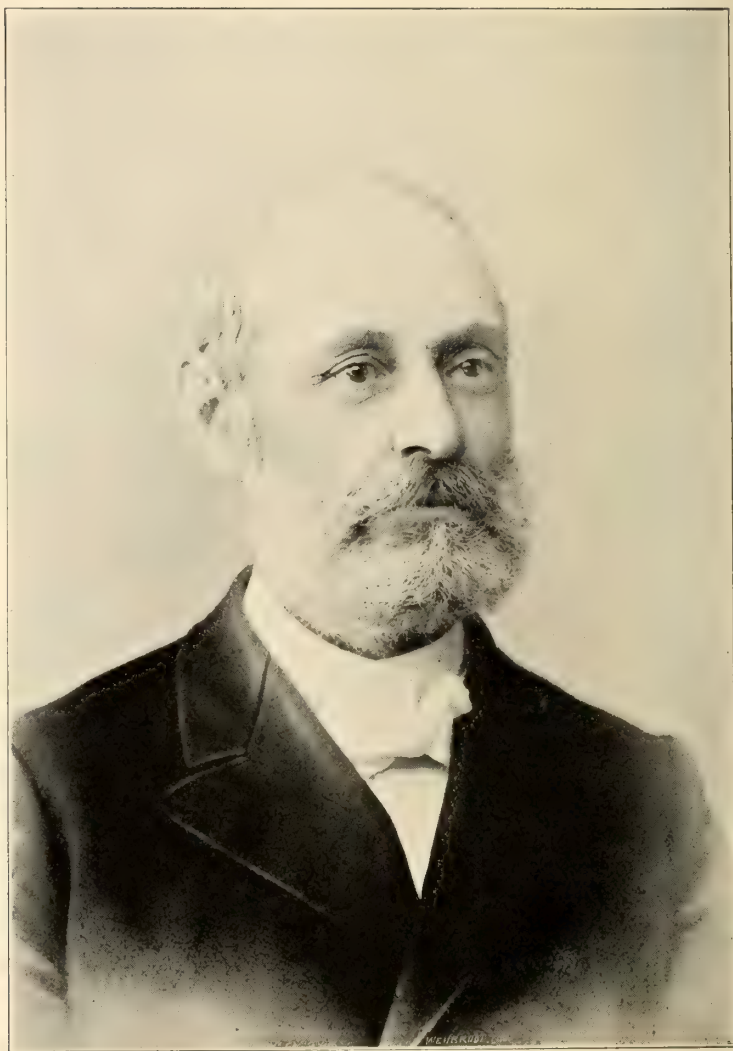
fessor Billroth united the two sets of qualities in a very conspicuous manner. Yet it was always the guiding intellect rather than the manual dexterity which impressed itself on the spectator. Truth to say, in the actual performance of an important operation Billroth showed no very marked superiority over his fellow surgeons. He avoided any show of brilliancy or flourish, went steadily to work, erred, if at all, on the side of slowness, and was neither more nor less discomposed by any complication or untoward event than any one else. The finish of his operative work was rather the result of his immense experience than of any remarkable aptitude. Nevertheless, as an operator he must be held to have justly earned a very high place. *New York Medical Record.*

LOUISVILLE has the astonishingly large proportion of about three doctors to every 1,000 inhabitants. There are only 5,590 physicians in the great city of London; and in Paris there is about one doctor to every 1,000 inhabitants. The four medical colleges of Louisville are mainly responsible for this excess. Of this year's graduates at the University of Louisville and Louisville Medical College twelve have located here, and there are two more large graduating classes to be turned loose in June. Louisville also supports seven active medical societies. And still she is one of the healthiest cities on the globe.

A DANGEROUS NOSTRUM.—Health Commissioner Reynolds, of Chicago, has analyzed a sample of a nostrum called "Birney's Catarrh Cure," sold indiscriminately by many druggists. He found four per cent of cocain in the sample, and adds that "the indiscriminate use of such a remedy is dangerous in that it may be used to excess, and then the dangerous properties of the contained remedy will become apparent. The amount of cocain in Birney's Cure is sufficient to develop the cocain habit when it is used persistently and in quantities."

THE INTERNATIONAL CONGRESS OF MEDICINE, held at Rome, received a petition signed by more than seven hundred doctors in India. This petition demands that Latin shall henceforth be the universal scientific tongue, and that a central medical bureau be established charged with the translation into Latin of all modern works worthy of preservation; also the creation of a medical journal published in Latin, this publication to be called *Salernum*, in memory of the first school of medicine in Europe founded at Salerno.—*Ex.*

TYPHOID FROM COW'S MILK.—An apparently well-authenticated outbreak of enteric fever from typhoid-infected milk is reported from Montclair, N. J. Some thirty families had been affected up to date. These, it is claimed, were all supplied with milk by a dairyman in whose family two children had been ill with typhoid fever for some weeks before the outbreak.



LYMAN BEECHER TODD, M.D.

LEXINGTON, KY.

Late President of the Kentucky State Medical Society.

THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNĀ.*"

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NO. 11.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

SCARLET FEVER.

BY LYMAN BEECHER TODD, M. D.

I regard the skillful treatment and successful management of scarlet fever as one of the notable and gratifying achievements of modern medical science. The manner in which the healing art is keeping abreast with the general advance of invention and discovery constitutes one of the most satisfactory aspects of this century's wonderful progress. Medical science is rapidly changing from the empirical to an exact science, as disease after disease yields before the definite lines of treatment for both cure and prevention that has been ascertained in long and patient research by numberless skilled investigators, and through the therapeutical application of scientific processes discovered in other fields.

Scarlet fever, like some other diseases which were once classed as absolutely fatal, has thus been largely robbed of its terrors in the household, and the list is steadily increasing. It surely is gratifying to believe that science will be enabled to vanquish virulent epidemics of scarlet fever, if not before this century closes, at least while the twentieth century is still young, and that the disease will be brought under as certain subjection as smallpox has been, and perhaps to be made harmless, if such epidemics should chance to occur.

I have mentioned successful management of scarlet fever, for with the advance of medical science its scope has broadened, and it has

grown beyond the circumscribed limits of what was once held to be its legitimate field, until it is now recognized as including the domains of general sanitation, as we know in the improved methods of sewerage, ventilation, and legally authorized quarantine, and guardianship of institutions of learning, public and high schools, colleges and seminaries.

While the learned scientists admit that the bacteria of scarlet fever are unknown, the now-a-days all-around, well-read and well-qualified physicians know from observation and from experience that certain morbid and poisonous conditions exist, that certain vagaries of scarlet fever are entirely unaccountable, which however appear as pointers in the treatment of this dreaded disease, viz., that frequently from mild cases of scarlatina very severe and often fatal cases of scarlet fever originate, and also that many persons who have been exposed to violent and fatal cases have entirely escaped.

A case cited of the latter may be of interest, instructive, and be helpful. Monday morning, August 1, 1893, Miss Van F., of Harrodsburg, who was visiting Mrs. B., at Woodland, was seen; aged twenty-two years, of medium height and weight; previous general health good. She had complained since Saturday, being in bed the latter part of the day, as she was the next day, Sunday, and until I saw her. She was then suffering with severe and unremitting headache, pain in the entire back, sore throat, and fever high, 105° ; pulse 122; restless and sleepless; tongue dry and furred. Found her entire person covered with a bright, scarlet-colored eruption, as I was informed it had been since Saturday afternoon. She was, in language non-professional nor classical, red as a rose and hot as a stove. In reply to Mrs. B.'s anxious question, "Doctor, what is the matter with Miss Van F.?" I said, "scarlet fever." Thereupon with unconcealed agitation she said that her daughter Maud, aged twelve years, had been sleeping with her, and with a younger sister of ten years of age had been in the room with her all the time, constantly exposed to the disease, waiting upon her. Diligent and painstaking investigation continued for days failed to disclose or discover the origin of this disease.

I was hurriedly summoned to see her at five o'clock in afternoon of same day. She had been delirious; pulse quicker and bounding; temperature 106° ; breathing rapid; extremely restless, with anxious expression; complaining with head and throat; bowels still unmoved. Powder as given in forenoon, calomel and Dover's powder, of each six grains, was ordered to be given, and in four hours a full dose of pure

castor oil. Attention was given to throat, internally and externally, hot drinks advised and perfect rest and quiet.

At an early visit next morning I was gratified to find her more comfortable and her condition improved. After free and bilious movements from bowels, and kidneys having acted well, she slept five hours. The eruption was characteristic; throat still inflamed, slightly ulcerated; pulse 100, and temperature 102° ; respiration less hurried; no delirium. A telegram of alarm brought from Harrodsburg an unmarried sister, two years younger, who never had scarlet fever. During four succeeding days the violent symptoms gradually abated. The case was treated with usually prescribed antiphlogistics,* strict attention was given to the throat, and as a restorative remedy to diseased mucous surface Listerine was employed, as suggested by Dr. J. Lewis Smith in Pepper's System of Medicine, and advantageously used; I also directed attention to secretions from bowels and kidneys.

On the eighth day no trace of eruption was visible. Desquamation of cuticle, beginning about the sixth day in part where eruption first appeared, proceeded, and on ninth day portions of cuticle were thrown off, and continued, extending over her entire person. Without serious interruption she made a good recovery, and she was helped over general debility and nervous exhaustion with hypophosphites. This case seems to me to be of fourfold interest.

First. Since recovery of the patient it has been ascertained beyond doubt that one year and two months previous to her attack a little child died in that house of scarlet fever, whose family removed to Cincinnati; that the house had been vacant for six months, but had been carefully cleaned and thoroughly ventilated before occupancy.

Second. That the patient recovered.

Third. That so little medicine was required, which probably accounted for it. And I have learned that discretion and wisdom which come with age demand that less physic should be given, especially to children, and plead that nature should be given a living chance.

Fourth. That the two children who had been from the onset of the patient's attack exposed to the disease, the grown sister who never had scarlet fever and nursed her, and others who were directly and continuously exposed had securely escaped, and by neither was the disease communicated to others.

* I use this word obviously to avoid burdening this paper with mention of many and valuable prescriptions usual in the treatment of scarlet fever, abundantly found in modern text-books and medical journals, with which the well-informed practitioner is familiar; and especially as each case is, as it were, a law unto itself, and must be treated rationally, that is, as symptoms present themselves.

My thus making special mention of this interesting and typical case of scarlet fever, and remarkable and gratifying exemption from contagion, justifies my emphasizing the necessity, and indeed the bounden duty of the faithful physician, as guardian of public health as well as of families committed to his care, of giving careful and painstaking attention to even mild cases of scarlet fever, because, first, from such cases severe and fatal ones have originated, and may at any time occur. And second, when cases considered mild are overlooked, more especially in the stage of convalescence, the patient, either young or adult, may by exposure take cold or indulge in improper food, which would cause serious consequences and complications, as inflammation of eyes, injury to ears and other mucous passages, but especially disease of kidneys, to impair health, sight, hearing, and destroy life itself.

The period of caution is considered to be six weeks from commencement of the disease, provided desquamation has ceased and the mucous membranes are healthy.

Here let me impress the importance of the truth that this period of caution can not be too closely observed nor too rigidly enforced, because upon its observance the family is made safe and the protection of the public is secured. Here, indeed, the good doctor must play the rôle of autocrat. Probably at the end of three weeks, the patient being lively and apparently well, the inconsiderate mother will say: "Doctor, can not Mary and Eva go back to school, they are losing so much time and getting so far behind in their classes; they are well; they had it in such a mild form—you know that Eva hardly went to bed at all?" The physician here and now must put his foot firmly down, and say: "No, indeed, madam, not for six weeks from the time of the attack; for while we rejoice that your little ones have been spared, would you have them now return to school where many other little children might take scarlet fever from yours, and some of them probably would die?" Trades-people, and especially dressmakers, become impatient and plead that their business will suffer, and that their trade will leave them. And here, also, the doctor must be inexorable; because, while he may hear that money is in one balance of the scale, he must always justly and faithfully see in the other safety, health, and happiness.

In scarlet fever, which so long has been a terror to households and neighborhoods, remember that seclusion, absolute and perfect seclusion, is positively necessary, and every reasonable and conceivable precaution against contagion and conveyance of this disease is of inestimable

importance. There are numerous well-authenticated instances of scarlet fever having been conveyed to great distances, and contagion after long periods of time by contact with articles of clothing or objects that had been used by patients with scarlet fever. This fact is very familiar to all, and I shall mention only one case of transmittal of scarlet fever which was recorded by an eminent physician of Boston, who had personal knowledge of the occurrence.

In 1846, a boy of eight years, the brother of the narrator's wife, was taken down with scarlet fever and died. One of the principal amusements of his illness had been looking over a large picture-book. After his death this, with several other useful playthings, was packed away in a trunk. Twenty-six years later, in 1872, the sister-in-law of the editor took this trunk with her on a journey which she made to England, where she was at that time residing. The trunk was opened the second day after its arrival, and the picture-book was taken out and presented to the editor's two-year-old son. During the next fortnight the little fellow was attacked with scarlet fever. It was a wonder to the doctors who were called in consultation how the disease had been contracted, as there had been no scarlet fever in town for years. At last it occurred to the editor that the picture-book might have transmitted the disease, and the medical men in attendance, on being told the facts connected with it, agreed that it had retained the poison for twenty-six years and had communicated it to the child.

As I have been requested to furnish for this journal an article "entirely practical," as I purpose this to be, and surely the wish is father to my purpose that it may prove so, and therefore useful and helpful as well, I could not regard it complete without impressing the importance, yes, the necessity of the judicious selection and use of valuable disinfectants, of which a recent writer in *The Companion* says: "Long before people understood the manner in which contagious and infectious diseases were communicated from one person to another, the importance had been fully established of a thorough disinfection of the patient's clothing and the room which he had occupied; but the agents formerly employed for this purpose, sulphur included, are now believed to be wholly useless."

At present only three chemical agents are recognized as of value in completely destroying the germs of disease and preventing their spread. These are carbolic acid, corrosive sublimate, and chloride of lime, and it is at once apparent to any one at all familiar with these chemicals,

that their employment is necessarily restricted, as all of them are irritant poisons when used in excess.

Of the three, chloride of lime is perhaps the one which may be said to deserve the greatest commendation, on account of its cheapness and the comparatively little danger attending its use.

German authorities advocate the employment of steam and heat, justly maintaining that in these we have cheap and efficient agents which are also highly penetrable and at the same time are dangerous to but few household articles.

The following rules may be said to conform to the latest approved methods of disinfection :

1. All fabrics which will not be injured in the process must be boiled in water for at least four hours.
2. Fabrics which will not stand this treatment are to be subjected to the action of dry heat for a much longer time.
3. Furniture, etc., may be treated with a four-tenth-per-cent solution of carbolic acid.
4. All articles which have been in actual use by the patient must be burned.
5. The walls of the room must be thoroughly rubbed down with bread, which must afterward be burned.
6. The sputa and excrements of the patient must be at once treated with chloride of lime.

It is evident that upon the thoroughness of disinfection depends not only the private but the public welfare.

LEXINGTON, KY.

PUERPERAL ECLAMPSIA.*

BY A. D. PRICE, M. D.

Mrs. A. S., aged thirty years, American, primipara, was taken in labor during the evening of November 9, 1893, and was attended by her husband, an under-graduate. At four o'clock the following morning she had a convulsion which was followed by seven eclamptic seizures within the next few hours. Dr. Forsythe was called at 5 A. M., and administered chloroform by inhalation, giving by enema thirty grains of chloral, which was not retained. I saw the patient in consultation

*Read before the Central Kentucky Medical Association, April 19, 1894.

at 10:30 A. M. She was unconscious, and had been since the first convulsion. She had the ninth seizure soon after I entered the room, and the tenth one in about fifteen minutes. She was pale and anemic, and there was present general edema. The cervix was slightly dilated, its edge being thick and boggy; the head was engaging, the position being L. O. A. The patient was put in position, chloroform administered, the catheter introduced, only a few drops of urine escaping, the cervix was rapidly dilated with the fingers, the forceps were applied, and a living child delivered at 11:30 A. M. The placenta was expelled by expression in twenty minutes, following which was quite a free flow of blood that was controlled without difficulty. The perineum was ruptured to the second degree, and while it was being repaired the eleventh convulsion took place. The patient was ordered two grains of calomel on the tongue, to be repeated every hour till five doses were taken; she also had hypodermatically s. morph. one half grain, with instructions that it be administered every two hours until the convulsive seizures ceased.

I did not see the patient again, but her husband reports that she had five convulsions from 1 P. M. to 6 P. M., and three hypodermic injections of s. morph., one half grain each. She remained unconscious till 8 A. M. the following day, when she awoke in a dazed condition, her bowels having acted copiously and her kidneys freely. She did well till the end of the second week, when she was seized with phlegmasia dolens that continued three weeks, at which time convalescence was complete.

I will not use this case as a text for the discussion of the pathogenesis and treatment of puerperal eclampsia, leaving that to be elucidated by the remarks of the gentlemen who will follow, but to emphasize the great importance of its prophylaxis.

The accoucheur's duties are not discharged simply by his ministrations in the lying-in chamber. The proper management of labor embraces the period from conception to the complete restoration to health. The physician then should have constant supervision over the patient and be always looking out for premonitory symptoms, the first of which is generally renal insufficiency. The urine should be repeatedly tested for albumen, its specific gravity known, and the amount passed in twenty-four hours ascertained at least once a week. Should albumen be found, the patient should at once claim the physician's most careful consideration. Rest, quietude, freedom from care and all worry should be secured; she should be put on the skim-milk diet, receive a hot bath twice a week, followed by gentle friction to induce a healthy action of

the skin, be given the tincture of iron in such quantity as she will tolerate, and have administered occasionally an intestinal evacuant to assist in the elimination of the poison.

I am aware that eclampsia can not be wholly avoided and that fatal cases will occur, but I believe that early prophylaxis will, as has been demonstrated in my own practice, prevent in many instances its development, and in not a few mitigate its severity.

The lesson that I would impress is not to be satisfied with being called only at the time of labor, but to insist on having the constant and continuous supervision of the patient for at least several months before confinement; and to this end spare no pains to educate the public.

HARRODSBURG, KY.

THE EVOLUTION AND DESCENT OF MAN.*

BY T. B. GREENLEY, M. D.

[CONTINUED FROM PAGE 387.]

But if we believe that one species was evolved from another, from a lower to a higher form, in accordance with the laws laid down to govern evolution, we must conclude it required many millions of years to accomplish the task, when we consider the great number of species now existing, and those extinct that have inhabited the world since the protozoic time. If we take, for example, the elephant or mastodon, and trace his ascent by small variations from the mouse, we must conclude that millions of years elapsed during this tedious process. As these animals belong to the same tribe or phylum, both being mammals, natural selection has power, according to Haeckel, to differentiate in any direction, up or down. Then, if evolution had to work backward in the direction of man from the elephant, it would have required nearly as long to have gotten back to the marsupials as it required to get up to the elephant. The making and getting rid of the tusks was a big task. Or it may be claimed that the line of ascent toward the elephant branched off from the marsupials. But a difficulty exists in regard to the mammals. The marsupials being intermediate between the ovipara and the mammals proper, it is essential to trace the mammals from the marsupials, and considering the kangaroo to be the largest of his class, it would be necessary for natural selection to go down hill again to the

*Read before the Hardin County Medical Society, April, 1893.

mouse in order to begin the family of mammals proper. But this part of the work should have been done before we started up hill to make the elephant. But the question arises, by what law of nature did a divergence take place by which one line of ascent led in the direction of the large pachyderms and the other in the direction of man? It seems remarkable to the ordinary understanding that blind nature should have exercised such a judicious differentiation in the evolution of the different grades of animals. It is difficult to satisfy the thinking mind through what strain of animals the elephant was evolved. It could not have been through the feline race, such as the tiger, leopard, etc., nor through the canine species, as that branch was in the line of the progenitors of man. Then we are forced to conclude, that as the bovine and equine species are hoofed animals, that the elephant must have descended through the hippopotamus or rhinoceros. But in evolving the elephant from either one of these animals natural selection would be compelled to work a long time through variations to produce the necessary changes, as there exists a great difference in the form and size of the ears. The tusks and trunk would have to be made *de novo*, as there are no rudiments to evolve from.

Then the customs and disposition of the animals would have to be changed, as one is an amphibian and the other possesses a horn near the end of the nose with the eyes placed just below it. We meet with difficulties all the way along the route on account of the dissimilarity of the animals in this line, as well as being ignorant of the point where evolution branched off in the family of mammals to start in the line of ascent toward the mammoth or elephant.

Origin of Intellect. This is a subject which has caused great perplexity of thought among evolutionists. Herbert Spencer thinks it was developed through the multiplication and co-ordination of reflex actions. He and Darwin both mix instinct with intelligence so closely that it is scarcely possible to distinguish them. We may make, I think, this difference between the two, to wit: Instinct is nearly peculiar to animals and natural to them, mainly by inheritance, while intelligence is a manifestation of the species *homo*, and to a great extent acquired by education. As before remarked, young animals have the instinct to hunt for their natural supply of food, as in the instances of the calf and pig. The chicken by instinct breaks its shell in order to liberate itself from confinement, and in a few minutes will be picking up particles of food. But, although the human baby is born with the

largest brain of all animals, it is incapable of manifesting any intellectual or instinctive phenomena, but is so organized as to be impressed by almost any degree of intelligence by proper education. This matter has been alluded to before in this paper. Although it can not be denied there exists a close analogy between instinct and intelligence or intellect, I think it may be said that the one belongs to animals and the other properly applies to man. Be this as it may, it would be a matter hard to prove that either intelligence or instinct was evolved from the moneron or protozoon by heredity or natural selection; for it can not be claimed that either of these faculties were possessed by any of the lower forms of life. It certainly was not produced by Haeckel's spontaneous generation, as that was claimed to have taken place from a single inorganic substance by chemical reaction.

In regard to this matter Mr. Darwin seems to be entirely at sea. He says: "In what manner the mental powers were first developed in the lower organisms is as hopeless an inquiry as how life itself first originated. These are problems for the distant future, if they are ever to be solved by man."

In Darwin's admission that the Deity created the first forms of life in order that evolution might have a commencement, he should at the same time have admitted that if he created the physical animal he had also power to create its intelligence or instinct.

Darwin also remarks: "It deserves notice that as soon as the progenitors of man became social, and this probably occurred at a very early period, the principle of imitation and reason and experience would have increased and much modified the intellectual powers in a way of which we see only traces in the lower animals."

Now it would seem strange for a close observer and able thinker to imagine how our great ancestors, the higher apes, could improve themselves by imitation and experience when there was none to imitate or to give an example in experience by which these faculties, guided by reason, could be cultivated. If they possessed these social qualities they must have been developed inherently before they could have been practiced, and since lost them by elimination as not being beneficial.

Turning to the social and moral faculties, Mr. Darwin says: "In order that primeval men or the ape-like progenitors of man should become social they must have acquired the same instinctive feelings which impel other animals to live in a body, and they no doubt exhibited the same general disposition."

Now this statement is in direct opposition to what we know of the history of our immediate ancestor, the gorilla. He is known not to be a gregarious animal, but, on the other hand, lives separate from other members of his tribe, except with his mate. He even deserts his offspring as soon as they become a few years old. All these ideas as to the social and intelligent qualities among the anthropoids in their wild state are merely hypothetical. But the question might here be asked, allowing that the first manifestation of instinct or intelligence was inherent in the lower forms of life, how could these qualities be differentiated and improved by variations and preserved by heredity and natural selection?

There is a great difference between the action of natural selection on the physical part of an animal and that of the mental. But evolutionists claim that all mental action and phenomena are due to morphological action of the brain cells. Of course this is simply pure materialism. They also claim that the organic structure of the brain of man and the gorilla are exactly the same except in size. They further claim the cells to be very similarly arranged. Now, if mental phenomena were entirely dependent on brain structure, and all brains are alike, why is it there exists such great difference in the manifestation of mentality between the gorilla and man?

This matter will be alluded to again when we come to speak of original man as it regards his state of civilization. We have already alluded to the difference, mentally, between man and animals, as well as the great superiority in this particular of some of the smallest insects over that of the highest apes.

We will now speak of Dr. Hall's theory, which, he contends, explains all the varied biological and vital phenomena witnessed in nature. His theory is, "that the external or corporeal structure of any organic being is but a tithe of its real and substantial existence; that the life and mental powers of each living creature constitute an incorporeal yet substantial organism, as real as its anatomical structure, and of which its physical form is but the external type or visible expression." He contends that "by this theory the transmission of all mental and corporeal characteristics from parents to offspring is explained and can not be transmitted by heredity." It has heretofore been shown how it is impossible that corporeal conditions can be transmitted on account of entire change and renewal of animal tissues in man several times during his life.

Another argument he uses in favor of this theory is the fact "that children frequently favor the father as much as the mother, yet only about a thousandth part of their corporeal organism can come from the father, showing unequivocally that the child's apparently inherited characters, both of body and mind, are derived exclusively from the incorporeal vital and mental organism of both parents, while their physical structures are only the visible conducting media through which transmission takes place, just as a wire is the corporeal medium through which a message reaches us, while electricity is the incorporeal but substantial agent by which the transmission is effected."

The fact that the ovules of all vertebrate animals from man down are exactly alike, in the estimation of Mr. Darwin, constitutes a strong argument in favor of his theory that man descended from the inferior animals.

Dr. Hall argues "that it is the incorporeal vital entity that constitutes a part of every living creature which governs and controls the growth and development of the embryo, guiding it to the form of its type or species. He contends that if it was not so, the germs or ovules all being similar chemically and physically, a cat would be just as liable to produce a raccoon or a rabbit as to bring forth a creature having a feline organism."

This theory was never advanced by any author before Dr. Hall, and is evidently very ingenious, and explains some points in embryology and biology that scientists have been unable to account for in a rational manner.

Mr. Darwin attempted to account for some of these phenomena by what he termed pangenesis or gemmules, which he claims to exist in all animals, and which took the place of destructively diluted ancestral blood and made corporeal transmissions and reversions possible. But as he allowed these gemmules to remain dormant from generation to generation, while thus descending or until roused into action by some unknown conditions, it would prove abortive on the theory that no organic substance can remain dormant in the system without being soon thrown off as useless under the law of metamorphic change of tissue.

Civilization of Early Man. A majority of the scientists believe that man originally was a barbarian, and entirely unacquainted with civilization. It is to be supposed that all evolutionists entertain this belief. They could not consistently believe otherwise if we descended from the gorilla.

When we consider that the anthropoid apes for many thousands of years made no advance in intelligence over their ancestors away down in the line of descent among the articulates, millions of years ago, it would be very plausible to presume that we could not have inherited any tendency to civilization from our direct ancestor, the gorilla. But this view of the matter leaves our friends, the evolutionists, in quite a dilemma. The question may be asked, if natural selection could do nothing for the anthropoids in the way of elevating them as it respects civilization, how did it manage to change a barbarian in the shape of man to a civilian?

It evidently had a much longer time to work on the ape than it has had to operate on man, and as man inherited nothing in this particular from the ape he had no advantage over him. Then why is it that man, standing on the same ground in this regard as the ape, has been for many centuries a civilized being, and how did he become so? Scientists are prohibited from claiming it to be the result of natural selection after its having so utterly failed in this respect on the apes. Then we are compelled to fall back on the question as to man's civilized state in his earliest history.

If we believe that he descended from the ape we consequently must believe, as has just been shown, that he was originally a barbarian; but, on the other hand, if we believe he was created by a benign omnipotent power, we must conclude that he appeared on the earth as a civilized being. To believe the first proposition involves a miracle which evolutionists claim to disbelieve can be practiced. On this hypothesis man was compelled to civilize himself. How can a barbarian work such a miracle as to change himself into a civilized being.

As before remarked, the infant *homo* is born the most helpless and ignorant of all animals, but possessing a brain larger than any animal, and capable of all possibilities in the way of being taught. But at the same time this infant has no inherent power of teaching itself, and if immediately placed among savages would grow up to be a savage itself. Now, as man in the infantile condition has no inherent capacity of teaching himself, how did he ever become civilized if originally a savage? This is a question that appears to be unanswerable, yet some scientists have endeavored through hypothetical reasoning to make it appear plausible that man gradually civilized himself.

Sir John Lubbock, Mr. Tylor, and Mr. McLennan contend that this was the way man became civilized from his natural barbarous condition.

Their main argument seems to be based on the fact that rude tools of agriculture and implements of war have been found in many countries, and that many civilized people still retain superstitious beliefs that are common to barbarous races, and even go so far as to illustrate this hypothesis by citing that occasionally the old habit of capturing wives is still practiced. They also with a flourish ask if it can be proved that any barbarous people ever existed that did not practice polygamy? This is another point in opposition to the theory of descent, as man did not inherit polygamy from the gorilla, as he is a monogamist.

When we come to consider the various faculties or qualities of mind possessed by man which are absent among all inferior animals we must conclude that they are not inherited but are derived from Divine influence. I allude to conscience, religious sentiments, justice, and philanthropy. These moral and religious faculties are not claimed by scientists to have been derived from the apes, but have gradually been developed through the influence of natural selection. But, as before remarked, when naturalists claim the brain of the gorilla to be anatomically similar to that of man, and natural selection never developed, as they admit, any of the moral or religious faculties in him, how can they reasonably expect such a work to be wrought in man?

Darwin, Haeckel, and others seem to labor in their works to prevent any connection or association between science and miraculous creation, although Darwin admits, as before remarked, the creation of a few of the lowest forms of life, it is presumed merely as a matter of accommodation for evolution. As it is admitted the first forms of life were created by omniscient power, why not admit the probability of man's creation? This hypothesis would at once account for all the mental phenomena we see manifested in his state of civilization without endeavoring to fathom it by improbable speculations.

No naturalist has yet been able to start the evolution and descent of man without acknowledging a miraculous act in the outset. Haeckel, as before remarked, being an atheist, of course could not admit that the Deity created even the first form of life, so that he could commence his evolution and descent, but called on nature for assistance, and had a moneron spontaneously manufactured. This would seem to the ordinary observer to be as great or greater miracle than if he had allowed the Creator to have intervened. But Haeckel was very particular to state that this spontaneous action could only take place but once, and was confined to a certain locality. It was essential for his hypothesis

to confine this formation to a single action, for fear the process may have continued so as to populate the world with too many creatures, thereby producing a greater struggle for existence and preventing the interaction of natural selection in evolving the higher species.

Here, again, we are at a loss to comprehend the phenomena of spontaneous generation, as well as to imagine how it was confined to one locality and to a single act. But Haeckel contends that it can not be disproved, and, on account of the conditions of life at that time of the world's history being so different from what they are now, that it is a reasonable hypothesis. If scientists had looked on the reasonable side of these matters and allowed either creation or spontaneous generation to have continued their operations, it would have saved a great deal of mental work in the way of ingenious devices to account for life on the globe.

In speaking of the barbarous races now extant on the earth, the late Dr. Kempf accounts for them under the head of the wandering Cainidæ or ancient nomads. In a lecture on the subject he quotes several verses in the fourth chapter of Genesis respecting the murder of Abel by his brother Cain, together with his banishment by the Lord, and dwells on the sixteenth verse: "And Cain went out from the presence of the Lord and dwelt in the land of Nod, on the east of Eden." The definition of the term *nod* in Hebrew signifies the land of banishment and wandering.

Now, if we admit that the flood of Noah was local, probably confined to the western part of Asia, it is presumable that the nomads of the land of Nod, who were eastward, were not destroyed by the flood, and, being the descendants of Cain, became the progenitors of the now existing barbarous tribes and nations. This hypothesis to account for the existence of the barbarous tribes and people, in one point of view, might be regarded as plausible. As Cain was driven out from the presence of the Lord, the inference might be drawn that he had passed from under the influence and guidance of the Creator, and having no fear of the Lord before his eyes lapsed into barbarism. Bishop Whately and the Duke of Argyll contend that man was originally civilized, and that barbarism resulted by relapsation. We regard this as being the most plausible hypothesis by which to account for the existence of barbarous peoples on the globe.

Archeology affords us strong evidence that in prehistoric times civilization existed where since barbarous tribes have dwelt. We find

these proofs in Mexico, South America, and many other places. Hence we must conclude that civilized nations in these countries either lapsed into barbarism or were displaced by barbarous tribes.

Geology affords no satisfactory proof in favor of evolution. If one species was developed by gradual changes of form into another of higher type, paleontology should afford some plausible record of the fact, but it seems so far there is no evidence that such intervening forms ever existed. Many species that formerly lived are now extinct, but some that were destroyed during the Cambrian period have their prototype now extant. Therefore the law of Darwin, that inferior forms were destroyed as superior ones arose, falls to the ground.

Now, Mr. President, I have noticed many points which are in contravention to the theory of the descent of man, which I imagine are incontrovertible as evidence. It is a law, as before remarked, with scientists that if any one fact can be shown in opposition to any hypothesis then the theory fails. Now I think I have cited several objections to the so-called Darwin theory of the descent of man, which I claim the hypothesis is entirely unable to explain or account for. In fact, Mr. Darwin has not demonstrated that in a single instance was there ever one species evolved from another of a lower type, and yet he wishes the theory to be taken as a scientific fact. It should be regarded as a doubtful theory when it can not be illustrated by a single truth.

The descent theory would have been much more plausible if the authors had admitted the supervising power of the Deity to have guided the descent of one species to another in the line of ascent in the scale of life. But when every thing was left to blind chance to direct natural selection in the proper path to the formation of a higher order of life from a lower, and claiming to have in view the formation of man as the climax of its work, no wonder our credulity is somewhat put to a trying test.

Mr. Darwin, together with other scientists, seems to be proud of his descent from the lower forms of life. The only way we can account for this peculiar kind of pride is the fact of its antiquity. It is a common thing with us poor mortals, no difference what our standing among our fellows may be, to be proud if we can trace our descent from some ancient lord, or some variety of nobleman, or even great general, such as Marlborough, Napoleon, or Wellington, and so much the better, on account of antiquity, if we could go back to Julius Cæsar. But how a man can feel proud that he descended from such a horrid-looking and

savage brute as the gorilla is to us unaccountable, and we can only infer, as before intimated, that it must be on account of great antiquity. We always thought a reasonable pride for our ancestral descent was commendable, but at the same time regarded it as incumbent upon us to endeavor to do credit to such pride by a consistent course of life.

When we take a view of the surrounding works of nature and contemplate its grandeur in the movement of the celestial bodies, with the aggregation of terrestrial beauties, together with the great genius of man in utilizing so many of nature's laws to his own uses, we are astonished to think that any rational mind can ignore a designing Creator. When we take a drink of water we are reminded that it quenches our thirst and is congenial to our every feeling, and on analysis we find it composed of elements in such proportions as to be essential to all living beings. If we examine the constituent principles of the air we learn that oxygen, the great supporter of animal life, is diluted with nitrogen exact in measurement to be properly adapted to the respiratory organs of all breathing animals so as to duly oxygenize the blood. If we wish to make a fire, either to cook our food, warm ourselves, or for other purposes, we discover that this same vivifying element, oxygen of the air, is ready to aid us. If we plant our crops in the proper season we depend on the well-known law, that like begets like, and expect without disappointment to reap the kind we sow. So unchangeable is this law that man has availed himself of it to plant trees to bear certain kinds of fruit at some distant time in the future.

We could name many more unvarying laws of nature instituted by Creative Will for the benefit and happiness of man, but these citations are sufficient to illustrate the position we assume. And, as before remarked, it is strange they could be mistaken for the mere happenings of blind chance.

"Remember, 't is a well determined cause,
That Nature works by fixed, not partial laws;
If the Darwinian theory then be true,
Why can not Nature form the same things now
That she accomplished countless years ago?
Why is it, then, that in our present day
The evolution powers the noble work delay?
Why from the apes no human sons now spring,
From man no perfect, no angelic being?
Divest not Nature of a first great cause,
Divest not God of order and of laws."

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 ORELL, KY.

Reports of Societies.

THE LOUISVILLE SURGICAL SOCIETY.*

Stated Meeting, March, 1894, Dr. A. M. Vance, President, in the chair.

Dr. W. C. Dugan (Rectal Tumor): The specimen which I present is a tumor that occupied the lower part of the rectum to within one half inch of the anus. The patient was a young woman about twenty-two years of age, who came to my clinic with almost complete obstruction of the bowels. In making a rectal examination I was able to force my finger through, but it gave her severe pain, and quite a hemorrhage followed the exploration. The history was, that two years ago she noticed she was becoming more and more constipated, and that her stools were very small, though at times alternated by diarrhea, which is known to be very common, and is most certainly the result of fermentative changes in the accumulated fecal matter. The obstruction was so very gradual, and the pain so inconsiderable, that she never realized how serious it was until complete obstruction existed. I made the diagnosis of carcinoma of the bowel, and advised excision, which was consented to. I did the operation at my college clinic. With a pair of curved scissors (blunt pointed) I made a circular incision around the anus, cutting one half inch from the orifice; then cutting the external sphincter muscle behind and in front so as to bring it down; then following it down with a blunt pair of scissors, keeping as close to the

* Stenographically reported by C. C. Mapes.

gut as possible, yet being careful to keep well beyond the suspicious tissue where possible, until the levator ani was exposed. Then with a knife it was cut entirely around, and we then found no trouble in bringing down the gut with a degree of ease that would surprise the inexperienced. At this stage of the operation it was found that at one place the growth had so extended as to apparently incorporate the wall of the vagina, and it was here that we experienced the only really serious difficulty. The tumor seemed to have extended more in that direction than elsewhere, but by having one finger in the vagina and cutting with a pair of blunt scissors I avoided opening the vagina. I do not feel, however, that if I had cut into the vagina it would have been a serious surgical mishap, and I shall watch the case with care, and, if in a short time I find the growth was not all removed, I shall cut the vagina and do a modified Kraske's operation. Each case must be a law in itself. I thought I was above the tumor, and started to cut off the bowel, when I discovered that the growth extended still further, so continued my dissection around until you will notice I have made a section through the normal gut.

One point in this connection I wish to emphasize, that is, the mistaken idea that carcinoma occurs almost entirely in the old. This is the second case of cancer of the rectum I have met with in young people within the last two or three months. Some time ago I reported to this Society a case of sarcoma of the breast occurring in a girl only thirteen years of age, and I have a patient under observation now, under twenty years of age, who had an enormous sarcoma of the mammæ removed only a few days ago.

In the case I have reported to-night the symptom of pain was lacking, which is contrary to the opinion generally entertained, and I might say that it is even not a common symptom in these cases. In carcinoma or cancer involving the lower part of the bowel, and also involving the skin, there will be pain becoming more and more intense, whereas if it begins above the internal sphincter, it is, according to my experience, one of the latest symptoms to develop, the symptoms being those of obstruction only. When there is pressure upon the nerves, then we have pain extending down the thigh, and such symptoms give us an idea of the size of the growth. When the tumor is of sufficient size to press forward upon the bladder, severe pain may be manifest in that organ, and I take it that this symptom should have a great deal to do with operative interference.

DISCUSSION.

Dr. A. M. Cartledge: I was very much interested in the report made by Dr. Dugan, and agree with him that this is probably one of the best methods of dealing with carcinoma of the rectum. Unquestionably such a case as he presents is not usually considered a favorable case for excision of the rectum, the disease being very extensive; it seems to involve nearly the entire bowel, and such a case I believe would usually be considered one for colostomy rather than excision. However, I agree perfectly with Dr. Dugan that his conservative operation has prolonged life and induced a condition of comfort that possibly might not have been obtained by the operation of colostomy. I do not think the conditions here are favorable for a non-recurrence, in fact I think it will be almost certain, as the cancerous mass was so extensive. I take it that Dr. Dugan's operation was more with a view of relieving obstruction of the bowel and the prolongation of life rather than a radical operation which would prevent recurrence of the trouble.

I am glad Dr. Dugan called attention to two points, first, the almost entire absence of pain in some of these cases; second, the fact that we rely too much upon the age of the patient in cancerous disease. While we know that cancer of the alimentary tract as a rule occurs after thirty-nine or forty years, the fact that it may occur very much sooner should not be overlooked, as this case amply demonstrates. All these questions are of especial interest to me, and I hope I may be pardoned for speaking in this connection of a cancer of the sigmoid flexure that I operated upon to-day in the case of a woman fifty-five years of age. The history of the case is a little remarkable, and I report it simply because of the fact that Dr. Dugan has made a point of the absence of pain. This lady was seemingly apparently well until the first of January of this year, when she rather suddenly became constipated, which in a few days led to obstruction of the bowel. Her physician was called, who looked upon the case as one of adynamic obstruction due to atony, probably with fecal impaction, seemingly so slight that it could not be detected from an external examination. The bowels simply would not move; by a rectal examination he could not discover any mass. He treated her, without an action of the bowels, for three weeks. I saw the case in consultation about the 27th of February. At this time the lady's pulse was 100, and her temperature normal. She had considerable abdominal distension, but she was still able to pass

gas freely, which unquestionably accounted for the tolerance of the condition. After consultation, I told the doctor I thought there was organic obstruction, and advised an exploratory incision. I left the physician in charge, who said he wanted to try the administration of large doses of belladonna; I agreed to that, and suggested the addition of fresh oxgall every four hours. This was given, and strange to say the bowels did move the next day very copiously, still it was only a thin, watery character. I believe she had sixteen stools that day under the treatment mentioned. Of course I simply yielded my position entirely to the physician, that the obstruction was adynamic and not mechanical in character. At this time her physician was called away from the city, and left the patient in my care. After a day or two the bowels lapsed back into the former condition of constipation, which existed for perhaps twenty-one days. Naturally enough we tried belladonna and oxgall again, and used almost every thing else of reputed value without any effect whatever. There was a little passage of gas at times when she was in a certain position, especially on the left side. I was embarrassed very much in the experience, from the simple fact that the bowels had moved after obstruction seemingly of twenty-one days, and yet after an examination of the rectum I felt a mass in the pelvis which seemed to be connected with the posterior part of the uterus, and I was satisfied that the obstruction started from that point. I passed a tube readily up as far as the sigmoid flexure without getting any fecal matter, and felt sure that the trouble could not be from fecal impaction. Examination of the abdomen revealed no solid tumor, and nothing further than the mass before spoken of behind the uterus. The patient was carefully watched until yesterday, when she commenced to fail rapidly; for the last three or four days there had been considerable nausea at times, but I could not gain my own consent to operate until yesterday, and the operation was performed this morning. After making an incision in the median line I went down upon the mass behind and attached to the uterus, which was the tumor I had felt. I will state that there was a history of peritoneal trouble in this case existing two years ago. On cutting down, the sigmoid was found as a large adherent mass attached to the uterus posteriorly. In order to facilitate the work the patient was placed in an exaggerated Trendelenberg position, and by careful dissection and separation of adhesions an enormous cancerous mass as large as a man's fist was brought into view; the bowel was enormously distended above, with the collapsed rectum below. The

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mass was too large to think of the ordinary operation of excision, so I immediately made an anastomosis with the Murphy button of the colon above the mass to the rectum. This permitted the free passage of gas and fecal matter immediately into the rectum. The longest time was spent in getting the cancerous mass out from behind the uterus, which was finally done without rupturing the bowel. The anastomosis I should say occupied seven or eight minutes. The patient was taken off the table with pulse of 100; when she went on the operating-table pulse was 115. She is resting very comfortably to-night, and is seemingly in a normal condition. Exactly what the outcome will be I do not know, it being the first case of anastomosis by the Murphy button that I have made. I believe it is the first time the operation has been done here.

This case was characterized by freedom from pain throughout, except as a result of the distension, being in this respect similar to the case reported by Dr. Dugan. Then the trouble coming on so suddenly, and all the symptoms were misleading as to the malignant origin. The attack of peritonitis occurred two years before, which kept her in bed for six months.

Dr. W. O. Roberts: There are several interesting points about the case reported by Dr. Dugan. First, the age of the patient; second, the character of the growth—it seems to be a scirrhus. Then, too, it seems to involve the entire circumference of the gut at the upper end, and at the lower end only two thirds of it; the anterior wall of the gut does not seem to be involved at all. Scirrhus of the rectum we all know is not nearly so common as epithelioma. The involvement of the lower part of the bowel I should think would have caused a considerable amount of pain. As Dr. Cartledge says, cancer of the bowel frequently occurs without pain. I had a case not long ago, which is mentioned in Dr. Mathews' work on the rectum; the patient had never suffered until symptoms of acute obstruction came on. When I saw him there was enormous distension and vomiting, and every thing pointed to obstruction in the descending colon. He was given a number of enemata, but nothing except the water came away. An examination of the rectum revealed malignant disease located in the upper part of the rectum; the constriction was so close that the tip of my finger could not be gotten through it. A colotomy was performed. I saw another case some time ago, occurring in a middle-aged woman, where there was sudden obstruction of the bowels, and a laparotomy revealed malignant stricture of the sigmoid flexure.

Dr. Dugan: Concerning the point of the removal of the coccyx and lower part of the sacrum (Kraske's operation), I have tried this recently in operating upon a man sixty years of age, who had almost complete obstruction of the bowels, but he had considerable pain, and the growth had extended downward and involved the skin, and ulceration was fairly under way. I am in favor of Kraske's and its modifications in certain cases.

In the case I incidentally mentioned a moment since I was very much deceived in the extent of the growth. There was in that case two distinct deposits, the first one being low down, while the other was about six inches up, and was difficult to get away. I intended to excise about four inches of the gut, not more than that, but as I drew it down ready for excision I found on the anterior wall of the rectum still another cancerous mass, which exceeded in size the one I had already prepared to remove, consequently it became necessary to extend my dissection until at least six inches of the gut were removed, and I was surprised at the ease with which it could be done, as the peritoneal coat was easily stripped off.

There was one complication that gave me no little anxiety, and that was the urine all passed through the wound, showing rupture somewhere. In the afternoon of the day of operation the nurse told me there was very little urine. The question was, where was the lesion. As we dissected the tumor from the bladder I was careful, and, while much of its base was exposed, failed to see the rupture. The ureters were exposed, so we thought they were all right. But the next morning when I saw him I found the discharge very free, and the air in the room had a decidedly urinary odor. I then thought that possibly we had cut the ureters, but hoped that it was but a rent in the base of the bladder. The man passed no water from the urethra, and by catheterization none was found in the bladder for several days. But in the course of four or five days some water was passed the natural way, and in less than ten days all the urine was voided through the urethra, so that the probabilities are the ureters were not injured, and so the bladder was most certainly torn. I simply report the case in connection with the other one, as it had several points of interest. I am quite sure I can excise even more of the rectum than was done in the specimen here presented (4 and 6½ inches), and the operation is much more easily and quickly done than the Kraske operation, as I did in the last one referred to, removing two or three of the lower sacral vertebrae along with the entire coccyx.

Dr. James S. Chenoweth (Multiple Uterine Fibroid): This specimen is a uterus removed some weeks ago for multiple fibroid. The woman came to me complaining of edema of the right thigh, and upon examining her to ascertain the cause of the swelling I discovered a mass in the abdomen just above Poupart's ligament, which on further investigation proved to be a nodule of this fibroid. The larger nodules at the lower extremity of the growth were wedged down into the pelvis. I sent her to the hospital, intending to operate four or five days later, but she was in such a weakened condition that I kept her there ten days before doing the operation. She stated that she had never been conscious of any trouble in the pelvis, but she had suffered with very profuse menstruation for five or six months before the operation. After she had the grip and pneumonia she had not menstruated for two months. The day after she went into the hospital the menstrual flow came on and was very profuse for four or five days.

I showed the specimen more to speak of the method of operating than any thing else. The uterus, including the tumor, was held up into the abdominal incision without any difficulty; three ligatures were taken in each broad ligament, including the ovarian and uterine arteries. A peritoneal flap was carefully stripped off the cervix, with the bladder in front and the rectum behind, and the uterus amputated. There was no hemorrhage. This was cut off after the ligation of the uterine and ovarian arteries without any tourniquet being applied to the cervix. Nearly all operators apply a ligature or clamp to control the hemorrhage, but as here demonstrated this is a useless and time-consuming procedure, provided your uterine arteries are securely tied. After removal of the tumor the cervical canal was carefully mopped with carbolic acid, and three rows of catgut sutures inserted between the cervical canal and the peritoneum, two in the cervical tissue, and one whipping together the folds of the broad ligaments from one ovarian artery to the other, evening in all raw surfaces. The abdomen was closed, and a glass drainage-tube introduced, which was left twenty-four hours. There has been no pain since the operation, and the patient has made a very easy convalescence. No medicine has been given, except salts to move the bowels. I was particularly struck with the easy convalescence after the operation.

DISCUSSION.

Dr. Dugan: Dr. Chenoweth seems to be rather opposed to the use of the ligature in cases of the character he reports. I am rather in favor of it, for this reason: If we have a tumor, for instance, shaped something like the one presented, with a small pedicle, and have this mass filling the upper part of the pelvis, it is not very easy to get into the cavity to ligate the ovarian and uterine arteries. The better plan is to tie off the broad ligaments in sections, turn them aside, and then lift the tumor up into the incision and throw the rubber ligature around it so as to hold it well up into view. Now we will experience no trouble in ligating the uterine arteries each side. I believe operation is greatly facilitated by use of the ligature. This, of course, is only in those cases with such expanded round base.

Dr. Chenoweth: Dr. Dugan misunderstood me in regard to the use of the ligature. I stated distinctly that I considered the ligature entirely useless and harmful after the ligation of the ovarian and uterine arteries; where it would facilitate this ligation I think it would be perfectly proper.

Dr. Dugan: In this connection I recently removed a fibroid, very much larger than the one shown by Dr. Chenoweth, from a woman thirty-three years of age. She had been suffering with a considerable amount of pain, and had circumscribed pelvic peritonitis. She was put on the table for operation in good condition, and was still in good condition when taken off the table, and the operation was performed as mentioned by Dr. Chenoweth, tying off the arteries each side, with the exception that a ligature was thrown around the tumor to hold it up in the incision. The pedicle was treated by the intra-peritoneal method. There was very little hemorrhage; the uterine arteries were tied close to the cervix, then the cervix was cut off and the parts brought together and united, first by deep and afterward by superficial sutures. For forty-eight hours she did well. All at once she had some little distension, and I told the nurse to give her an enema; this was done, and the patient strained and made a great effort at stool. I was called by telephone about twenty minutes later, and when I reached the Infirmary found the patient pulseless, in collapse, and she died shortly after from hemorrhage. I thought it rather late for hemorrhage, forty-eight hours after the operation, and it was probably brought on by the effort at stool, as twenty minutes before she was in good condition.

Dr. Cartledge: I am a great advocate of supra-vaginal amputation for myomatous tumors of the uterus. I believe when the technique is good it is the best of all operations that we now possess for this very common condition. There are two or three points which have impressed me concerning operation for uterine fibroids (a man profits more by his experience than by reading): one is the matter of direct ligation of the uterine arteries, another is the material we use. It is much the better plan, after you tie off the ovarian arteries, getting down to the broad ligament, to ligate the broad ligament in several sections, and then apply a ligature directly to the uterine arteries, than to do as I did in my first case, transfix the broad ligaments, ligating the uterine arteries in that way. Another thing, in applying the ligature, if we are not careful we may get too far from the cervix; it should be applied as close to the cervix as possible. The uterus and uterine arteries are wrongly demonstrated in works on anatomy as a rule. The artery does not come in at right angles as we usually see it pictured.

As to ligature material, I am convinced that in an operation of this kind where we use silk entirely too much of that material is left to be taken care of, and the next one I do (and I have a case upon which I shall operate in a few days) I am going to use catgut throughout. I have always employed silk, and while I made it practically as aseptic as I am capable of doing, yet I believe it has been a disturbing element in two recent cases. In one there was a prolonged convalescence. In another, Dr. Chenoweth will remember, we used three ligatures upon the broad ligament, ligated the ovarian and uterine arteries, and sewed the peritoneum also with fine silk, some of which came away afterward during slight peritonitis. Of course the peritonitis might be attributed to the drainage-tube, but I think drainage is almost always necessary in these cases for a few hours. Dr. Howard Kelly, who is probably one of the most expert operators in this line, uses no drainage whatever, but by his method the patient is kept under the influence of the anesthetic for a much greater length of time than is required by any of the ordinary methods, and I have never been able to get my own consent to this prolonged anesthesia. He takes time to ligate even the most minute arteries, and, after tying, if there is the slightest oozing, he inserts more stitches. The same care is exercised throughout the whole procedure, and altogether he makes a perfect operation; but I believe equally as good results can be obtained by the use of drainage for a short period after the operation, and time be saved by keeping the patient not so long under the anesthesia.

The following is an abstract of an essay by A. Morgan Cartledge, M. D., on "Fecal Fistula Following Abdominal Section," read before the Louisville Surgical Society, March, 1894:

Spontaneous recovery is the rule in such fistulæ, probably eighty per cent having such a fortunate termination. It is the obstinate and troublesome twenty per cent that we are especially interested in.

Improved technique, combined with greater experience and better facilities for observation within the abdomen afforded by the Trendelenberg position, will certainly do much to diminish the occurrence of fecal fistula. It has been claimed that this condition is a preventable one. No doubt this is true of most cases, but surgeons of wide experience can easily recall intra-abdominal and pelvic troubles where no amount of skill and care could protect against at least the possibility of this sequel of operation. It may be said that cases so desperate from adhesions as to render fecal fistula probable should not be operated upon, and yet these very desperate cases often make the most gratifying recoveries without fistula or after its occurrence.

Prevention. When numerous intestinal adhesions are found to exist, no time should be lost in extending the parietal cut to such dimensions as to permit of the visual inspection of the field of work. The value of Trendelenberg's posture in such cases can not be overestimated. Too rapid work is very dangerous in these cases, it matters not how dexterous the operator. Not only may fecal fistula result from intestinal denudations of the serous coat, but the researches of Cornil and later of Macaigne demonstrate conclusively that such denudations may be the means of permitting the colon bacillus to penetrate the intestine from within, and thus excite grave peritoneal inflammation.

Drainage, aside from its beneficial effect when needed to prevent peritonitis in removing culture media, certainly predisposes to fecal fistula. The pressure effects of the glass tube, when retained for a number of days, especially when not moved or turned in its bed, may be productive of great mischief to the intestinal wall, the danger consisting chiefly in peritoneal denudation when it is withdrawn. What has been said of the glass tube applies with equal force to the gauze as suggested by Mikuliz. I would not be understood as condemning this most valuable method of drainage in indicated cases, yet four of my cases of fecal fistula have followed its use.

I believed, and still believe, it best met the indications of drainage in these four desperate cases, and yet, taken with unavoidable peritoneal denudations, I think it was a factor in the production of the subsequent fistula. Had I resorted to other means of drainage death might have claimed some of these luckless victims.

From what has been said in connection with infection from within the bowel by the colon bacillus, preventive measures would not be complete did they not include thorough evacuations of the bowels prior to operation.

Medical Means of Treatment. With the knowledge that the majority of abdominal fecal fistula recover spontaneously, we should not resort to surgical treatment until thorough trial has been made of the usual medical means of treatment. As soon as it is manifest that we have to deal with this trouble, four measures should be immediately instituted: First, give proper exit to the discharge by enlarging the skin wound if necessary. Second, thorough evacuation of the bowels by cathartics. Third, free irrigation and drainage of the fistulous tract. Fourth, rest to the alimentary tube by a diet barely sufficient to maintain life. After the bowels have moved thoroughly they should not be again disturbed for at least one week, and then by an enema. Thus treated the majority of fecal fistula ultimately recover, many closing in from six to fifteen days, in fact scarcely retarding the convalescence after operation.

Surgical Treatment. Surgical literature contains little in regard to the radical treatment of fecal fistula after laparotomy. This is due to the fact that few surgeons have attempted the operation. In deciding upon operation it is important to remember that the condition usually differs very widely from fecal fistula, as evidenced in the ordinary colostomies, enterostomies, and fecal fistula following abscess. Here the opening in the bowel is approximated to the parietal peritoneum, and little difficulty is encountered in the closure by operation. The tract in most cases of fecal fistula following abdominal section is quite long, three to ten inches, and not infrequently very tortuous. If operation is decided upon, the surgical indications are to expose the fistulous tract, follow it, and dissect out the adhesions to its bowel origin, cut it off and suture the bowel. In some cases this procedure will not be attended by many difficulties, in others it becomes probably the most trying of all intra-peritoneal operations. Considering that the largest number of these cases recover without operation, and the difficulties of the operation, it seems a safe and judicious rule to defer operation for at least a year in the hope that nature, assisted by competent medical means, may afford relief.

The author reported a successful operation for fecal fistula following laparotomy performed one year before. The fistulous tract, seven or eight inches long, was dissected out and the diseased bowel (loop of small intestine deep in right pelvic fossa) refreshed and sutured. The patient made a very rapid recovery.

DISCUSSION.

Dr. Roberts: The essayist has gone over the ground so thoroughly that there is nothing left to be said, except to give one's experience. It has been my good luck to meet with only one case of fecal fistula following laparotomy. This was in a woman who had a large ovarian tumor with adhesions, but no rent was discovered in the bowel at the

time of the operation, and the fecal fistula which developed on the sixth day after operation was attributed to the long continuance of the drainage-tube. The opening I thought was in the rectum; recovery took place without any operative interference:

Dr. J. G. Cecil: My experience with fecal fistula is very limited, in fact I have only seen one case, and that occurred in the practice of another surgeon, falling into my hands later; it was following an operation for fibroid. This was a case of a woman who was under my observation for several months, and despite all treatment that was adopted or could be suggested the fecal fistula persisted for quite a length of time, probably three or four months. It, however, became very nearly closed, and I presume finally closed altogether. She was a dispensary patient, and from the fact that I heard nothing more of her I assume that the fistulous tract closed. This case bears out the statement made by the essayist, and also by the previous speaker, that certainly many of these cases will close spontaneously, even those that appear to be most obstinate. Therefore I believe that we should persevere in the treatment, following the methods outlined by the essayist, only resorting to operative interference when it becomes evident that the fistula will not close otherwise. I agree with him heartily, that a man should congratulate himself in many cases of pelvic disease in getting off with a life saved and nothing worse than a fecal fistula remaining, because certainly when we open the abdomen in bad cases of pyosalpinx, where we find every thing matted together, the intestines included, it becomes almost an impossibility to avoid tearing into the bowel in separating adhesions. The region is almost inaccessible, and to dissect out an abscess in that situation successfully, with only a small fistula remaining, is certainly deserving of congratulation. I also agree that there are certain cases which will invariably be followed by fistulæ despite every possible care, and in the hands of the most expert operators.

Dr. Dugan: I have had very little experience in this line of work, the only cases I have seen having been those following herniæ, and there is only one to which I wish to call attention. I fully agree with every thing Dr. Cartledge has said in his paper in regard to waiting one year in cases of fecal fistula following laparotomy, with the exception of where the opening is high up in the small gut, when the operation should be performed as soon as possible. The fecal opening is sometimes high up in the ileum, as will be shown by the food being discharged in a liquid state and only partially digested, and in such cases opera-

tion is demanded as soon as the condition will admit; it may be necessary to resort to rectal feeding to accomplish this. I recall one case where an operation had been performed for hernia, a long-standing, neglected case, in which fecal fistula developed on the sixth day after operation, and it was found that the fluid passed out half digested. She lost flesh rapidly, going down as though she was eating nothing, while in fact she ate as though half starved to death; it was simply one of those emergency cases, and it was decided that an effort should be made to close the fistula. A careful dissection was made, and the edges brought together and stitched with the Czerny-Lembert suture, but her condition was such as to not give much hope of recovery, and she died the fourth day, never reacting from the operation. So, while the rule should be observed, the exception should not be lost sight of, for it is equally important.

Dr. Chenoweth: As to the causation of fecal fistula following abdominal section, I believe in a large percentage of cases it is due to the use of drainage. In a great many of these cases the gauze is left packed in the cavity entirely too long. Twenty-four hours, I take it, is sufficiently long for adhesions to form around it, so that drainage may be kept up, and the gauze ought always to be removed within twenty-four hours. In all cases where iodoform gauze is used for drainage purposes the lips of the wound become adherent to the gauze and the gauze becomes so filled with serum that drainage practically ceases before the end of twenty-four hours, and there is also the disadvantage that it is always more difficult to remove it after that time. In case hemorrhage is feared from early removal of the gauze I think thirty-six hours would give ample time for any vessels to be clogged sufficiently to allow removal; it certainly does not drain after that time, and should be removed, owing to its tendency to adhere to the bowel and cause fistula.

Dr. E. R. Palmer: Have you ever had gauze drainage-tubes, so called, examined microscopically, where they had been left inserted for thirty-six hours, to see whether or not any micro-organisms could be found in the meshes of the gauze?

Dr. Chenoweth: No. I have seen reports to the effect that gauze could be left inserted for a week or even longer, but have never seen a case that would drain that long. The longest time I have ever left my gauze was forty-six hours, and it had then become adherent to every thing with which it came in contact.

Dr. Palmer: I think you ought to get a good-sized vessel closed in twelve hours. I have recently had a curious experience in surgical hemorrhage after an operation on the urethra for stricture. The hemorrhage continued despite all efforts to arrest it for a period of six days, until finally, after various modes of treatment had failed, I introduced a bougie, which was allowed to remain for twelve hours then withdrawn, and there has been no hemorrhage since. I believe the result due to that period of rest, twelve hours, which allowed sufficient time for the blood to become coagulated in the vessels.

Dr. Chenoweth: Recently, after an operation for pyosalpinx, an attempt was made to remove the gauze at the end of twenty-four hours, and it excited a little fresh hemorrhage, consequently was allowed to remain thirty-six hours, when it was removed and no further hemorrhage resulted.

Dr. Roberts: In this connection, I had a case in which there was considerable hemorrhage following removal of an ovarian tumor with tremendous adhesions. The woman was so nearly in a dying condition that I did not take time to ligate the vessels, but packed the cavity with iodoform gauze, which was not removed for forty-eight hours. In fact the patient had so little pulse that I was rather afraid to attempt it. At the end of that time I removed the gauze, and the force necessary to do so was sufficient to almost lift the woman's weight. There was no fresh hemorrhage, but, as Dr. Chenoweth says, there was some dark-looking fluid behind the gauze which came away after the removal of the gauze. I think thirty-six hours is long enough to allow the gauze to remain.

Dr. A. M. Vance: I simply want to mention the advantage of the Trendelenberg position in searching for injuries done at the time of the operation. I think in the old flat position we are at a very great disadvantage, and oftentimes intestinal injuries escape our notice, where the Trendelenberg posture would allow us to discover them. When an injury to the gut is detected I agree with Dr. Cartledge that the proper procedure is to enlarge the incision and repair the injury.

Dr. Cartledge: I accept the suggestion made by Dr. Dugan and will incorporate it in my paper, as I believe it to be an excellent one, that where we have a fecal fistula opening so high up in the bowel as to interfere with assimilation and digestion an operation is demanded earlier. As a rule, however, in the class of cases referred to in my paper, fecal fistula following laparotomy, the intestinal opening is nearly always in the lower bowel. Of course it is different in fistula following hernia, and the opening in such cases may often be found higher up.

Dr. Chenoweth is quite right in reference to one point I made in the paper, drainage is unquestionably a factor in the production of fecal fistula; not that I think we can dispense with drainage, for we must consider it and duly appreciate its importance, and, especially in removing gauze drains early and in turning drainage-tubes, etc., in order to prevent, not so much the condition generally spoken of in this connection (injury to the intestine from continued pressure), but to prevent adhesions to the drainage-tube, so that when it is removed the peritoneal coat of the bowel is broken, allowing the escape of the colon bacillus and making a nidus for its growth and multiplication, after which we have necrosis from infection from within. That this does occur is proven in a clinical way by the fact that fecal fistulæ and necrosis sometimes occur after laparotomy where no injury has been done the bowel.

The question of adhesion to the gauze used for drainage is one of daily occurrence, not only in abdominal work, but everywhere else. I have had cases of laparotomy in which, when we attempted to pull out the gauze at the end of twenty-four hours, we brought out a large quantity of the omentum which had fairly grown into the gauze.

Dr. Roberts: At the last meeting of this Society I presented a patient having a large tumor above the orbit. I operated upon the man the following day. He would not consent to entire removal of the sac, so I simply laid it open, packed with gauze, and drained the tumor in that way, allowing it to contract. On opening the sac the interior was found to consist of a thick, dark, brownish-looking fluid, too thick to run through an aspirator. A sample was given to a microscopist for examination, but a report has never been rendered by him. The outer table of the skull was gone but the inner table was not destroyed. The optic nerve seemed to be about two inches long.

Dr. Dugan: I reported to this Society some years ago a case similar to the one Dr. Roberts has described in some features, but it was deep in the orbital cavity, and sprang from the optic nerve. It had caused great deformity by pressure on the bones, and the supra-orbital arch found to project as a thin plate of bone for at least one and one half inches. Dr. Vance first operated on her, removing the tumor; then, in a few months, Dr. Cheatham removed the eye and tumor; then, later, in about six months it came back, and it was removed by another surgeon, and as before it came back. The case came to me in about nine months with the tumor about the size of a medium sized orange, and

suffering great pain. I do not know where it came from, unless the periosteum. Upon examination it was found to be malignant. The orbit was removed in connection with the tumor. From the history I obtained the diagnosis was glio-sarcoma, and while I advised its early removal I told her that I could promise her nothing more than relief for a short time. The pain was so great she had me remove it, and strange to say it has never returned, and it has been about six years since the operation, when the cavity was cleansed of every thing, nothing left but the clean, exposed bones.

Dr. Palmer (Report of a Case): A gentleman, thirty-seven years of age, came to my office a year ago with anterior stricture. I was absent at the time in Florida, and he was operated upon by my assistant, Dr. Windell, Dr. Roberts backing him up in the operation. The operation was successful; he could pass an excellent stream, and to all intents and purposes was in first class condition. This patient came into my office a month ago, stating that he could not pass water. He also stated that he was exceedingly nervous, and seemed to be in a condition of incipient general paresis. I asked what he thought was the cause of his being so extremely nervous, and he said he had been taking the Keyes treatment for syphilis two years and four months without intermission. He could not stand up well with the eyes shut, and could not walk steadily, was exceedingly nervous, and had to be supported, and it looked to me as if he was doomed to a permanent catheter life. A catheter passed into the bladder with perfect ease—a No. 10 or 12 could be used without any trouble; the bladder seemed to be in a condition to hold the urine indefinitely. The urine was practically normal, but it was impossible for him to void it. I believe that this condition might result from the persistent use of mercury under the so-called tonic plan, and I am hanging between this view and syphilis of the nervous system. He is taking three hundred grains of potassium iodide per day; he has also taken other antisiphilitic remedies. Without especial belief that he had a deep stricture we, as a sort of last resort, passed the Maisonneuve blade clear into the bladder, hoping to get relief in this way. The question that puzzles me is whether this is a case of mercurial poisoning or a case of syphilis; the history of syphilis is exceedingly obscure; he has no symptoms and has had none except early and doubtful, and has taken an enormous number of $\frac{1}{4}$ -grain pot. iod. mercury. He has lost forty pounds in flesh, which would indi-

cate mercurial poisoning. The paresis is not confined to any particular set of muscles, not localized, and it is hard to say just what will be the outcome of the case.

DISCUSSION.

Dr. I. N. Bloom: I see no reason for suspecting mercury as being the cause of the trouble in this case. I would like to know how mercury could produce such a condition. There seems to be no history of syphilis, and I believe it is due to some spinal or central trouble. I do not see how it could be expected that passing a Maisonneuve and dividing the sphincter muscle of the bladder would be of benefit; I fail to see the necessity for such a procedure. The symptoms are those indicating central or spinal trouble; it is possibly a case of beginning locomotor ataxia. He is suffering from atony of the bladder undoubtedly. There are a number of symptoms that should be more carefully looked into and studied thoroughly, and I would look especially to the nervous reflexes to endeavor to localize the trouble. I certainly fail to see where there are any symptoms of syphilis, and I further fail to see any connection between his possible syphilis and the present nervous condition. I fail again to see any reason by which a man taking $\frac{1}{4}$ -grain pot. iod. of mercury for two years and a quarter should develop any of the symptoms detailed. There seem to be no symptoms of mercurial poisoning. The presence of the sign of Romberg would cause me to examine very closely for tabes dorsalis.

JAMES S. CHENOWETH, M. D., *Secretary.*

A RARE CASE.—Dr. J. F. Noland, of North Judson, Ind., was called to see Mr. R., aged eighteen, with whom a horse he was riding fell down; the animal in his efforts to regain his feet struck patient with his front shoes in such a manner as to badly lacerate the penis and completely tear away the scrotum, leaving the testicles hanging pendulous to the cords; the left one was so badly lacerated that its removal was inevitable. The right one was returned to the abdominal cavity. The ragged edges of the scrotum were cut away and the smooth cut surfaces brought together with the ordinary silk suture. Two sutures were also required to restore the penis to its original shape. Patient made a good recovery and seems to possess all the powers of manhood.—*International Journal of Surgery.*

Correspondence.

SAD MISHAP WITH ANIMAL EXTRACTS.

Editors American Practitioner and News :

In a number of published papers I have urgently advocated giving honestly and fairly the record of our successes as well as failures, of our blunders as well as our hits, in published reports of cases. The time has now arrived for me to put these precepts into practice, some very lamentable mistakes, not to use a stronger expression, having taught me a lesson that I shall try to profit by in the future, and which I think ought to be made known to the profession, in the hope that it may inure to the general good.

The blunders I wish to call attention to occurred recently in the preparation and use of the animal extracts so fortunately discovered by the late Dr. Brown-Séquard, of Paris, France, and so effectually developed by certain eminent physicians in our own country. After having carefully and diligently experimented for quite a lengthy period in the manufacture and use of these extracts, I came to the conclusion, from my results in the treatment of certain functional troubles, that I had accidentally hit upon an unusually excellent technique in the manipulation, and felt emboldened to try my hand in the treatment of some organic troubles.

One particular lot of the extract had proved so exceptionally efficient that I decided to adopt the method pursued in its preparation as a rule for my laboratory. Looking up the note of the method I had employed with it, I ascertained that in all essential particulars except one I had followed that of the high authorities now everywhere recognized in this connection. The exception had regard to the length of time given to the maceration. Instead of one year, the regulation time, I had left the material in the macerating vats for eleven months, five weeks, and eight days.

My first experiment was made with two black-and-tan setter dogs, who, in attempting to take charge of some bluegrass hay in the manger of a Kentucky thoroughbred stallion, had been set upon by that spirited animal and compelled to beat a hasty retreat, each with the complete loss of an ear. These canines were named respectively Ardotto and Scipio. Ardotto had lost his left ear and Scipio his right. As Ardotto had become quite vicious, and was also unkindly suspected by the neighbors of eating his mutton too fresh, I conceived the notion of killing him and feeding his ear to Scipio in the shape of aurine, or ear-extract, to be made according to my improved formula.

The result was marvelous. In the course of a few weeks after Scipio began taking the aurine thus prepared an ear began growing rapidly from the old stump, and in a short time the appendage was fully restored. If there was

any difference, it looked smoother and glossier than the other, and, indeed, though not noted at the time, it was an exact reproduction of the ear of the condemned Ardotto. I failed to take into consideration at the time that the dogs were twins, that they had lost opposite ears, and that they were both black and tan, all these coincidences being purely accidental. However, after a short time Scipio was unluckily run over by a street-car, and lost his left hind leg. Encouraged by my former success I began looking up a suitable dog that could spare a leg, or a leg that could spare a dog, with the view of preparing a quantity of legine, in the hope of restoring as before the lost member. The first dog brought was a strong bench-legged cur, with a shaggy, well-curved tail. After the carcass had been divided ready for committing to the vats, it somehow failed to meet the fancy of my assistants as well as myself, so we threw it aside and substituted an animal that appeared to be a vigorous cross between setter and Newfoundland, using the right hind leg in the preparation of the extract.

An enterprising young friend, however, took it into his head to treat a bob-tailed dog belonging to his mother, with a preparation of tailine, in the hope of restoring the missing member, and requested permission to prepare the extract in my laboratory from the tail of the rejected cur. To this I cheerfully consented.

After macerating our materials with scrupulous regard to the period we had adopted as our rule, viz., thirteen months, five weeks, and eleven days, my assistants went into the laboratory early in the morning before it was fairly light to get the legine, to begin treatment on Scipio's leg. Unfortunately in doing so they cracked the glass jar containing it. The jar in which my young friend had prepared his tailine stood next to it, but was thought by them to be empty. Into this they hastily poured the legine and brought the jar into the operating-room, where the mixture was administered to Scipio.

At first things went on most gratifyingly. A leg began growing rapidly from Scipio's stump, and in a short time it was thought best to turn him out for exercise so that the new joints might be made supple. When he was brought out it was observed that the hair on his tail was becoming rather coarse and stiff, and it was noticed, too, that his tail had begun to turn over his back. At first, however, it was thought that this roughness of the hair was due to the fact that he had not been in a situation to have the toilet of his tail properly attended to, while the curling was attributed to pressure against the walls of the narrow kennel in which he had been confined. Both the curling of the tail and the state of the hair grew worse daily, and an investigation which was now set on foot developed the mistake by which the legine and the tailine had become mixed.

In a short time Scipio's tail had become markedly bushy and ugly, and eventually became curled so tight over his back that half the time his hind feet were lifted clear off the ground. This led to the discovery that the extract from some animals is repotent as compared to others, for evidently

the tail-developing elements of the cur had predominated over those of Scipio. But poor Scipio's misfortunes did not end here. We had made the legine from the right leg of the mongrel, and the result was that a right leg grew on Scipio's left stump, and the dew claw was on the wrong side. Furthermore, Scipio had always been a right-handed accelerator, that is, he had been in the habit of lifting his right leg whenever he felt an inclination to moisten hat-racks, door-posts, and the like, and by a streak of ill fortune the same had been the case with the mongrel. So when it became necessary for Scipio to discharge the renal secretion both legs would begin bouncing up in the most tumultuous and unsymmetrical way, and this, with the tilting of the hindquarters due to the tight curling of the tail, made poor Scipio at such times a picture of confusion, shame, and chagrin that could not but touch a tender spot in the bosom of the most unsympathetic.

Imagine the consequences if I had been treating a sensitive young lady, say a beautiful blonde, who had happened to lose her nose through infection from the kisses of too ardent a lover, and a similar blunder had been made! Imagine that noseine derived from the black, broad, and flat proboscis of some glossy son of Africa had been used in the treatment, and worse still, if worse can be, that some one making hairine from kinky shearings from the same source had got the extracts mixed as we did. I draw the veil!

Half the seigniorage in the national treasury would not suffice to meet the damages, especially if the jury should happen to take its cue from a verdict in a recent noted case at the national capital. I only venture this allusion in order to suggest the measure of gratitude that is due me for making this humiliating confession purely for the good of the profession, and bravely regardless of the fact that well-nigh universal success characterizes reports throughout medical literature.

LUKIANOS.

ACTIONS OF CHLOROFORM.—J. V. Laborde (*Bull. de l'Académie de Médecine*) has endeavored to demonstrate experimentally that the primary accidents of chloroformization, such as the arrest of the heart and respiration, are due to an essential, predominant action of the drug exercised on the peripheral ends of the sensitive nerves of the nasal mucous membrane, that is, upon the terminal fibers of the trigeminal. The author has heretofore shown that the vapor of chloroform applied to the nose of a rabbit, or touching the nasal mucous membrane with a sponge charged with the anesthetic only produces a special irritation locally. As a consequence of this, there is an immediate stoppage of the lever that is recording the cardiac and perspiratory movements. On the other hand, if the nasal mucous membrane is rendered non-sensitive by the application of a local anesthetic like cocaine, or a general one like opium or morphine; or, again, if section of the trigeminal is practiced beforehand, then the arrest of the heart and respiration no longer takes place.—*Therapeutic Gazette.*

Pediatrics.

Under the Charge of Henry E. Tuley, M. D.

ON SOME FATAL AFTER-EFFECTS OF CHLOROFORM ON CHILDREN.—(London Lancet, No. 3674, p. 193.) Under the above title Dr. L. G. Guthrie calls attention to ten cases, giving necropsies in eight out of the nine fatal cases. He calls attention to the necessity of not attempting to rouse the child, unless collapse is present or the breathing becomes stertorous and the face dusky. Warm the bed with hot bottles, keep the room dark and cool. Turn the head on the side on a low pillow, and carefully watch for accidents, such as entry of vomit, or falling back of the tongue into the glottis. He relates a case where these precautions were not taken, and chancing to look around saw that the child had stopped breathing, the jaw had dropped, and she was rapidly becoming cyanosed. The head was turned to one side, the chin drawn forward, and the danger was soon over. Solid food should not be given until three or four hours have elapsed. Vomiting, unless frequent, persistent, and exhausting, after six or eight hours have elapsed need not be checked by drugs. Sipping very hot water or sucking small pieces of ice usually suffice. *Liquor calcis saccharatus* may be added to the milk in the proportion of two teaspoonfuls to the feeder, enabling it to be retained. Lime is itself a cardiac stimulant, and Brunton has shown the act of sipping also stimulates the heart. If vomiting persists it is necessary to feed by nutrient enemata. If needed bromide and chloral may be added. Enemata should be small. While recommending opium Dr. Guthrie admits that after the effect subsides the vomiting recurs with greater intensity. (Nothing does more good than a mustard plaster over the region of the stomach until the skin is thoroughly reddened.) Children often on regaining consciousness commence to utter piercing cries and continue to do so for many hours. In many cases this is due to pain, or to a tight bandage, or to a constrained position; but often no obvious cause can be detected. The child denies pain, or else declines to say where the pain is located, although sufficiently intelligent to do so. I have known a child to scream almost incessantly throughout one night and the greater part of the morning following an operation, without apparent cause. The bromides, chloral, paraldehyde, and other remedies were without effect, but she eventually became quiet and slept after an injection of morphia. The symptoms did not recur, and in this and many other cases no evil consequences ensued, but occasionally screaming and vomiting become symptoms of the gravest character.

In this paper ten such cases, nine of which were fatal, are recorded and discussed. The condition resembled that of acute delirious mania. Shriill, piercing screams are uttered at short intervals. The eyes are dry, the pupils

often dilated; the face is sometimes flushed, sometimes pale, and has a look of wild terror and anxiety. There are almost always great restlessness and sleeplessness, the patient tossing and struggling, and requiring constant attention lest the dressings should be torn off or fractured bones displaced. Consciousness is sometimes lost early, and in some cases never regained; but, as a rule, there are intervals in which the child appears to be dull and apathetic, yet answers rationally when addressed, and usually denies that it is in pain. Sometimes in the height of the excitement it may be soothed for a time, but the screaming will soon recommence. Headache does not seem to be present, at all events it is not complained of. Grating of the teeth has been occasionally observed, and in one case the pupils were unequal shortly before death; strabismus absent; vomiting violent, copious, persistent. The vomit, when the stomach was empty, is clear or yellowish, but for the most part it exactly resembles the dregs of beef-tea. It answered to Gmelius' test for bile pigment. In incessancy, volume, and character of the vomit it resembles the vomiting which accompanies cerebral disease. It was either acid or neutral. The temperature generally falls to 97° or 98° after operation. A temperature of 95.8° to 96° was noted only in one case, and this was the only one which recovered. The temperature undergoes several rises and falls and is commonly above normal at the time of death. In two cases it reached 103.2° and 104.6° just before death. The others varied between 99° and 102° . Death, as a rule, is owing to gradual exhaustion, the screams become less powerful and are uttered at longer intervals, the vomiting less violent, unconsciousness leads to coma, respiration and pulse gradually fail, the latter often being imperceptible for a considerable time before the breathing ceases. The type of breathing is that which is common in cases of death from gradual respiratory failure.

Although the symptoms in all but two of these cases strongly resemble each other in their peculiar cerebral character, and although there was one factor common to all, namely, that an operation more or less severe and lengthy had been performed under chloroform, yet it is by no means easy to attribute these deaths to a common cause. The possible causes of death may have been (1) shock with excitement, (2) carbolic-acid poisoning (in all but two cases), (3) iodoform poisoning in one case and mercurial poisoning in two, (4) pre-existing pathological conditions, and (5) the remote effects of chloroform.

Having thoroughly studied the cases from the results of the necropsies, the following admittedly theoretical explanation to account for these fatalities after operation, by supposing, (1) that these deaths (in all but two cases) were due to auto-intoxication; (2) that a fatty condition of the liver and therefore functional disturbance of the organ existed before the operations; and (3) that chloroform and operation-shock combined aggravated the condition already present and thus loaded the system with toxic alkaloids which the kidneys were unable to eliminate.

The practical results of such views are: (1) that in no case should chlo-

reform be given to patients suffering from fatty liver; (2) that, as it is impossible from physical signs and symptoms to do more than surmise the existence of fatty liver, we must rely on signs of functional inactivity of the liver, as indicated by the excess of alkaloidal substances present in the urine; (3) that the precise nature of such alkaloidal substances and the best methods of detecting them must be left for further investigation.

In a letter (London Lancet, No. 3676,) Dr. W. W. Cheyne concurs with Dr. Guthrie in his views as to the cause of death being in all probability due to carbolic and mercurial poison, as they were using those drugs freely at that time, and since discontinuing their use they have had no more mysterious deaths.

TUBERCULAR MENINGITIS FROM MILK.—An apparently well-authenticated case of tubercular meningitis, the direct result of drinking milk from a tuberculous cow, is reported from Yonkers. The patient, the four-year-old son of Mr. William A. Harper, of the publishing house of Harper & Brothers, who married a granddaughter of the late Rev. Henry Ward Beecher, gave no sign of ill health until the first of March, when the family physician was called in. The symptoms presented were those of tubercular meningitis, and later the diagnosis of this disease was confirmed by Dr. M. A. Starr, Professor of Diseases of the Nervous System in the College of Physicians and Surgeons of New York, who was called in consultation. The child died March 27th. The milk used by the family was supplied by two fine Alderney cows which were purchased about a year ago, and which had always seemed to be perfectly healthy. After the child's death, however, the Koch lymph test was applied by Veterinary Surgeon J. B. Lamkin, and the presence of tuberculosis was indicated in both animals by the rise of temperature following the injection. A careful examination also revealed evidences of tuberculosis in the udder of one of them; and it is claimed by Dr. Brush and other authorities that the milk of a tuberculous animal can not convey the disease unless the mammary gland is affected. It is stated that several weeks ago Dr. Lamkin reported to the Board of Health that he had found tuberculosis among the cattle of Yonkers.—*Exchange.*

CONGENITAL ABSENCE OF LUNG. (*La Médecine Moderne.*) Professor Tikhomiroff, of Kiev, exhibited a preparation of the right lung and the heart of a woman twenty-four years of age. There was a congenital absence of the left lung. The case was of interest from the practical as well as theoretical point of view. (a) The normal nutrition and development of the body had not been impaired. (b) The pulmonary apparatus is, in the first periods of embryonic life, single; for, in the case described, there was no indication of the left bronchus, and the pulmonary artery had but a single trunk.—*Medical Bulletin.*

Diseases of the Chest.

Under the Charge of Ewing Marshall, M. D.

HEART INFLAMMATION IN CHILDREN.—(Octavius Sturges, M. D., London Lancet.) This is the first of a series of lectures to be delivered before the Royal College of Physicians. A strikingly instructive lecture, because delivered by a thoroughly practical man, from data collected during his vast hospital experience. A case reported is of such great interest that I copy it just as it appears in the Lancet :

"A girl, aged seven years and ten months, anemic and ill-nourished, was admitted to the Hospital for Sick Children, Great Ormond Street, on April 28th last, with a history of six weeks' pains in the limbs, and for the previous three days swollen and painful joints. These symptoms had attracted but little notice in the family until twelve days before admission, when the child complained of pain at the heart, was seen to be short of breath, and had to be propped up in bed. The girl had never had rheumatism before, and was not of a rheumatic family. On admission the respiration was 36, the pulse was 120, regular both in force and frequency, and the temperature was 99° F. There was marked pulsation in the vessels of the neck, but no venous enlargement elsewhere. The area of cardiac dullness was not increased. A systolic thrill could be felt at the apex, and a loud-blowing systolic murmur heard at the same place and conducted round to the back. Inside the nipple and a little above it the second sound was incessantly reduplicated. For the following three or four days no particular change occurred. The child soon ceased to have pain, the area of heart dullness did not alter, nor did the heart sounds. The child was quiet and restful but lethargic. Anemia was more extreme. On the fourteenth day of residence, however, a marked change occurred. It began with an attack of nose bleeding, followed by a sleepless night. The child complained of headache. The temperature rose to 102°, although there was no return whatever of joint pain.

"The heart was tumultuous in action and its impulse was forcible and diffuse, the apex being apparently in the fifth space; the murmur was now of harsher pitch, so-called 'musical' in character, and was audible a finger's breadth outside the nipple line, where it abruptly ceased.

"Within the nipple a very slight diastolic sound was heard, the commencement, as it seemed, of friction, which was afterward distinct. The urine was now found to contain a trace of albumen and some blood. Hereupon (we have now reached the thirty-first day from the first heart pains and dyspnea) the most characteristic signs of active carditis appeared, that is to say, the child though free from actual pain and without marked dyspnea, was anxious and restless, the little sleep she got being disturbed by mutter-

ings and painful visions. A friction sound (to and fro) was now audible, its maximum intensity being at the ensiform cartilage, but it was distinctly heard as high as the second costal cartilage. The pulse (140) was still regular, and the temperature was from 100° to 101° . The area of cardiac dullness now for the first time began to enlarge, transgressing the left border of the sternum to the right, and a finger's breadth outside the left nipple to the left, the upper limit reaching the third space. It continued to enlarge somewhat for a while, but presently receded, and at death was hardly larger than on admission.

"Without staying to record daily changes, such as the distinctive friction rub and the thrill, the varying character of the apex murmur, the heart's action, now more, now less forcible and excited, while the veins of the neck began to show marked reflux, the patient being restless, free from pain, but tender on percussion over the cardiac area, we come to May 31st, the forty-second day from the first heart symptoms and within five days of death. It was on this day that vomiting set in, and it persisted. The area of cardiac dullness rapidly decreased, and the rub was but indistinctly heard. There were increased restlessness, groaning, difficult, yet not very rapid breathing, intense anemia, constant sickness, pericardial effusion, rapidly diminishing the while. The regurgitation in the neck veins increased, and now for the first time (a few days before death) edema of the legs and signs of pulmonary edema noticed.

"So the story closes June 5th. At the latest stage there was considerable engorgement of the lungs, perhaps accelerating death a little. The whole duration of the carditis was forty-seven days."

MORTALITY FROM TUBERCULOSIS ACCORDING TO PROFESSION AND HABITATION (M. Lagnau, *La Médecine Moderne*, February 21, 1894).—M. Lagnau, in comparing various European statistics, arrives at the following conclusions:

1. That occupations exposing to dust cause a marked predisposition to tuberculosis, the mortality of stone-cutters, according to Swiss statistics, being ten per cent.
2. Sedentary occupations predispose to the disease more than any others. Students and seminarians, as well as young clergymen, according to Italian and English statistics, show 459 deaths per 1,000 from the disease.
3. Printers in England and lithographers in Italy show from 400 to 300 deaths per 1,000.
4. On the other hand, individuals living in the open air, as mountaineers, farmers, and boatmen, enjoy an almost complete immunity against tuberculosis, Swiss statistics showing a mortality among them of only 1 to 2 per 1,000. As regards the habitation, the sanitary statistics of 662 towns in France prove that the more dense the population the greater the spread of tuberculosis. In 95 provincial towns of less than 5,000 inhabitants, the mortality from tuberculosis annually is but 1.81 per 1,000; in 33 towns of from 5,000 to 10,000 it is 2.16; 127 towns from 10,000 to 20,000, 2.71; 50

towns from 20,000 to 30,000, 2.88; 46 towns from 30,000 to 100,000, 3.05; 11 towns from 100,000 to 430,000, 3.63; Paris, with 2,424,705, 4.90 per 1,000. The progression here is manifest, and needs no comment.—*Universal Medical Journal*, April, 1894.

PNEUMONIA.—Like all other "fields medical" this will have to be gone over and rewritten. The definition of pneumonia will have to be recast. The old way of calling any thing in the way of inflammation about the pulmonary structures pneumonia is out of date, if we agree that true pneumonia is due to a specific cause, whether we accept the pneumococcus of Freidlander or pin our faith to some of the others. If the experiments of the Klemperers are accepted as proving their theory, then a second pneumonia involving the opposite lung from the primary case, and having an interval of time between the two attacks, will have to be carefully investigated. Certainly, if the serum from a man who has passed the crisis of pneumonia anywhere from one day to three months is capable of conferring immunity, then it does seem that the subject of pneumonia should more certainly confer immunity upon himself. According to my reasoning it is not to be expected that serum obtained from a subject that has passed through pneumonia will confer immunity upon another individual when the subject of pneumonia really has no immunity conferred upon himself. If injections of serum will produce immunity from any disease it will only be in diseases like smallpox, measles, scarlet fever, etc., where one attack generally confers immunity, often through life, certainly for a long period.

CROUPOUS PNEUMONIA.—Herman D. Marcus, M. D. (The Medical Bulletin, April, 1894.) A very fair *resumé* of the subject. One paragraph is especially worthy of consideration: "A treatment which, unfortunately, has been relegated to the background is venesection. Blood-letting, whether local or general, has, in my hands, always proven the remedy *par excellence*. Sthenic cases I always bleed during the first stage or the beginning of the second stage. In such a case I open generally the median basilic vein and remove eighteen to twenty-four ounces of blood. Such a course is immediately followed by a less embarrassed respiration, a more regular and slower pulse, and gradual fall of temperature. If cerebral symptoms are present they are nearly always improved. In less robust persons cupping (dry or wet) or leeches to the seat of the pneumonia are very beneficial."

ACCENTUATION OF THE PULMONARY SECOND SOUND IN PERITYPHLITIS. (Dr. Julius Mannaberg, in the Practitioner, April, 1894.) The frequent coincidence of this alteration in the sounds of the heart in any disease is certainly interesting. The reader will naturally say it is due to the increased resistance produced in the pulmonary circulation by the distended abdomen, but the author informs us that this condition was not present in the cases, and marked abdominal distension is the exception in uncomplicated perityphlitis. One fault in the report is that the author does not state whether the accentuation remained after the perityphlitis had passed away.

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UNCERTAINTIES OF PROGNOSIS.

If medicine has in any respect become a certain science, this certainly can not be affirmed of prognosis. At least two elements enter into the basis of every intelligent prognosis. These are the vitality of the patient and the extent of the morbid lesions. The former of these can never be accurately known during life, and the latter in a large proportion of cases is not ascertainable.

A third factor of uncertainty is also to be taken into account, and that is the ability of the attendant. But leaving this aside, the very best physicians are liable to be mistaken in the prognosis of cases, where not to give an opinion would be open to the imputation of cowardice or timidity.

Two well-known instances of recent occurrence are furnished by the cases of Cyrus W. Field and Bismarck. Each had physicians second to none in the world, yet Field lived several months after he had been pronounced dying, and Bismarck, after having had an opportunity of reading his obituary in papers in every corner of the earth, is still living, in good health, and a match for kings.

In old patients this uncertainty is much greater than in the young, the vital processes are much slower, and there are few physicians who can not recall cases wherein they had been happier in the recovery of their patients if they had not given positive prognosis of fatal results.

It is only in cases of open lesions in incurable diseases that it is even approximately impossible to be mistaken. Even in surgical injuries it may happen that a patient will possess such recuperative powers as will enable him to recover where ten thousand others with similar injuries would die.

The safe plan, then, seems to be never to give up a patient until he is dead, and not to give a prognosis that is not at least a little guarded in any except the most obviously fatal and hopeless cases.

Notes and Queries.

AMERICAN MEDICAL ASSOCIATION—San Francisco meeting, June 5-8, 1894. Section on Surgery and Anatomy: John B. Roberts, M. D., Philadelphia, Pa., Chairman; Lloyd W. McRae, M. D., Atlanta, Ga., Secretary.

It is proposed to devote a portion of the time of this Section to the systematic consideration of a few selected subjects, upon which papers, each not occupying more than ten minutes, will be read. It is hoped that speakers discussing these papers will confine their remarks to brief addresses of five minutes' length. The topics and papers to be so presented are:

1. Malignant Growths: The Pathology of Malignant Growths; Clinical Recognition of Malignancy in Tumors; The Necessity of Early Surgical Interference in Malignant Tumors; The Value of Caustics in Malignant Growths; The Radical Cure of Malignant Tumors by Operation; The Value of Inoculations with Septic or Toxic Agents in the Treatment of Malignant Neoplasms.

2. Tubercular Disease of Joints: Early Symptoms and Diagnosis of Tubercular Joint Disease; Conservative Treatment of Tubercular Joints; Operative Treatment of Tubercular Joints; Treatment of Tubercular Joints by Injections of Iodoform; Treatment of Tubercular Joints by Injections of Corrosive Sublimate.

3. Hernia: Causation and Prevention of Hernia; Management of Reducible Hernia; Treatment of Irreducible Hernia; Treatment of Strangulated Hernia; Radical Cure of Hernia.

4. Hemorrhoids, Fistula, and Fissure: The Pathology and Symptomatology of Hemorrhoids, Anal Fistula, and Anal Fissure; Treatment of Hemorrhoids; Treatment of Anal Fistula; Treatment of Anal Fissure.

5. Fractures: Treatment of Fractures of the Lower End of the Humerus; Treatment of Fractures of the Lower End of the Radius; Treatment of Fractures of the Neck of the Femur; Treatment of Gunshot

Fractures; Treatment of Fractures of the Shaft of the Femur; Treatment of Open or Compound Fractures.

6. Obstruction to Urination in the Male: Effects of Obstruction in Urination upon the Bladder and Kidneys; Diagnosis and Treatment of Enlargement of the Prostate Gland; Symptoms and Treatment of Stone in the Bladder; Symptoms and Treatment of Tumors of the Bladder; Treatment of Stricture of the Urethra.

Members who have specimens or patients to exhibit bearing on these topics, or who wish to make remarks in the discussion of them, are cordially invited to be present during the meetings of the session. The titles of other papers to be presented to the Section will be published when the programme of the meeting of the Association is issued by the Committee of Arrangements.

SENSELESS AND WICKED LEGISLATION.—We understand that an effort is to be made to increase the already excessive tax upon alcohol. Legislation of this character is both senseless and wicked. We protest against it as Democrats and humanitarians. The Democratic party was elected by the people in the hope of a decrease in the severe burdens they have so long borne. Alcohol is a prime necessity. Not whisky or brandy or wine or beer, but *alcohol*. Enormous quantities are used in the manufacture of medicines, and an increase in taxation means a necessary increase in their price to the suffering poor. Sick people, however poor, must have medicine, but can ill afford any additional increase in cost. Druggists and physicians who dispense their own medicines will also be seriously affected.

Then, too, the excessive tax upon alcohol exerts a paralytic influence upon home industry; compels us to import millions of dollars worth of drugs and chemicals that were better made at home.

In the name of patriotism, of humanity, of compassion for the sick and suffering of our land, we protest against such outrageous legislation by men who have not considered and do not understand the practical working of such statutes.

We call upon the medical profession, individually and collectively, to use all possible influence to defeat the bill for an increased tax on alcohol.
Medical Brief.

THYROID EXTRACT IN WASHERWOMAN'S ECZEMA, AND AS A LOCAL APPLICATION.—J. D. Menzies, Director General Medical Department, R. N., reports the case (British Medical Journal, No. 1734,) of a washerwoman, aged forty-two, suffering from an acute attack of typical eczema, of the impetiginous type, with intolerable itching and exudation. Three thyroid tabloids were prescribed daily, and in twenty-four hours there was very marked improvement. In three days the scales and crusts filled the bed and littered the floor, the soreness and itching disappeared.

On the sixth day the patient was convalescent and was allowed to attend the out-patient department.

Mr. Menzies in using the thyroid extract as a local application finds it useful in the following cases: (1) Unhealthy serpiginous ulcers; (2) open buboes of specific gonorrheal origin; (3) Hunterian chancres, and especially chancroids; (4) for the cure of deep sinuses. The medicine proved serviceable combined with calomel and another sheep product, lanolin.

DR. TISON, of Paris, read a paper before the Eleventh International Medical Congress, held in Rome, on the therapeutic properties of nitrate of aconitine. He employs it dissolved in a mixture of glycerine, alcohol, and distilled water, in the proportion of gr. $\frac{1}{64}$ to the dram. He has used this drug in about sixty cases of facial erysipelas, and regards it as the best known remedy for this affection, reducing the pain, preventing complications, and cutting short the attack. It is also of great value in certain forms of neuralgia, especially facial neuralgia. Neuralgias dependent upon chloro-anemia are, however, better treated with exalgine. In many cases of laryngitis and aphonia, due to an ordinary cold, the nitrate of aconitia is also beneficial. The drug may be given in maximum dose of $\frac{1}{64}$ grain a day, divided in ten doses. In pyretic conditions he has never observed any intolerance of the drug, but in afebrile states there is occasionally a little formication caused by the doses above mentioned, and in such case it is necessary to suspend the administration of the remedy. The menstruum of alcohol, glycerine, and water, so proportioned that the mixture has the specific gravity of distilled water, is useful for the exhibition of all the alkaloids.

SPIEGLER'S TEST FOR ALBUMEN.—Spiegler's very delicate test for albumen in urine consists of a test solution composed as follows: Perchloride of mercury, 8 grams; tartaric acid, 4 grams; sugar, 20 grams; distilled water, 200 grams. The sugar serves to raise the specific gravity of the liquid to 1060, which is higher than that of nearly all urines. It is used by placing some of it in a test-tube, and gently adding some of the urine to be tested. If albumen is present a ring will form at the junction of the two liquids. The reaction will not take place in solutions of egg- or serum-albumen save in the presence of chlorides.—*British Medical Journal*.

DR. BAKER, of Harrodsburg, Ind., delivered a child in November, 1893, having an umbilical cord fifty-two inches long.—*Medical Brief*.

Special Notices.

PEPSIN is undoubtedly one of the most valuable digestive agents of our *Materia Medica*, PROVIDED A GOOD ARTICLE IS USED. ROBINSON'S LIME JUICE AND PEPSIN, AND AROM. FLUID PEPSIN (see advertisement in this number), we can recommend as possessing merit of high order. The fact that the manufacturers of these palatable preparations use the purest and best Pepsin, and that every lot made by them is carefully TESTED before offering for sale, is a guarantee to the physician that he will certainly obtain the good results he expects from Pepsin.

N. F. GRAHAM, M. D., Washington, D. C., says: "I used Papine in a case of dysmenorrhea, for the relief of which I had previously used all the preparations of opium, and can say that it relieved the pain as promptly as morphine, without leaving any bad after-effects, as was the case when I had previously prescribed other forms of opium."

H. C. CROWELL, Kansas City, in *Kansas Medical Journal*, says: "In chronic ovariitis, if the cervix is found puffy, enlarged, and highly sensitive, the entire intra-vaginal cervix may be penciled over with iodized phenol or the dark *Pinus Canadensis* (Kennedy's)."

A. C. BERNAYS, M. D., Professor of Surgery, Marion-Sims College, St. Louis, Mo., writes as follows to the Dios Chemical Company: "I have used Sennine in a great many cases, and can recommend it conscientiously. Send one half dozen to the City Hospital at once."

It affords me great pleasure in saying that I have had signal success with Cactina Pillets in various forms of heart disease, in alcoholism, excessive tobacco, more especially chewing. Cactina Pillets are invaluable. I shall continue to use them.

THOMAS W. WEBB, L. R. C. P., L. M.

33 O'Connell Street, Waterford, Ireland.

"In the treatment of lung and throat affections, especially where you have a dry and persistent cough to deal with, your patient will experience immediate relief by administering terraline. We have tried this excellent preparation, and heartily recommend it in cases as above mentioned."—*International Journal of Surgery*.

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

SOME REMARKS CONCERNING MERCURIC BROMIDE OF GOLD AND ARSENIC, WITH ESPECIAL REFERENCE TO ITS USE IN THE TREATMENT OF NEUROTIC CONDITIONS OF SPECIFIC ORIGIN.

BY THOMAS HUNT STUCKY, M. D.

Professor of Theory and Practice of Medicine and Clinical Medicine, Hospital College of Medicine.

At a recent meeting of this Society I had occasion to mention the use of the bromide of gold and arsenic in epilepsy. Being, comparatively speaking, a new drug to this market, it was thought of sufficient interest to bring it more prominently before the Fellows.

The solution of mercuric bromide of gold and arsenic, after the formula of Dr. Barclay, of Pittsburgh, is of a beautiful red color, does not deposit, odorless, and tasteless; dosage ranging from five to twenty drops, each drop containing $\frac{1}{32}$ of a grain of gold, $\frac{1}{16}$ of a grain of arsenic, and $\frac{1}{32}$ of a grain of mercury salts. It does not disagree with the stomach nor relax the bowels. It will produce ptyalism, yet with less recession of the gums than is produced by mercury or the iodides.

Dr. Wood, in his admirable paper, read at the meeting of the Mississippi Valley Medical Association in Indianapolis, laid great stress upon its efficacy in diseases termed scleroses, incipient phthisis, arthritis deformans, in syphilitic disease in its various forms, in hemiplegias, etc.

I have the pleasure of exhibiting three cases to-night, and a record of eight others, all of whom, with one exception, belong to the neuroses.

Read before the Medico-Chirurgical Society, April 6, 1894. For discussion see page 479.

CASE I. No. 436 of my college clinical records; diagnosis hemiplegia. W. O. M., aged twenty-eight, married; residence, Denver, Col. Family history fairly good; occupation, proprietor of theater. Habits, had used alcoholic beverages rather freely for five years. February 28, 1893: Following a two days' drunk patient vomited with great straining; passed into unconsciousness lasting seventy-two hours; complete dextra-hemiplegia, ataxia, aphasia, sinistra-hemiplegia supervened.

December 2, 1893: Patient presented himself at Clinic having complete paralysis of the right side, could not count fingers with left eye; tongue on protrusion pointing sharply to the right; corners of the mouth greatly depressed on right side; arm on the right side could scarcely be lifted away from the body; leg dragged after patient in characteristic manner; all reflexes greatly exaggerated. Patient could answer yes and no to questions, but could not tell where he lived, and had to be brought to the college. Was placed on liq. arsenici et hydrarg. iodidi, five drops in a wine-glass of water, after meals.

December 6th: Was given the mercuric bromide of gold and arsenic in five-drop doses after meals.

December 9th: Patient developed *la grippe*, treatment was discontinued, and acetanilide given.

December 13th: Condition improved, and mercuric bromide of gold and arsenic was given again.

December 20th: Some improvement; medicine continued.

January 3, 1894: Dose increased to ten drops.

January 26th: Patient answers all questions with comparative ease; came to the clinic by himself; can lift his arm as high as his shoulder; the characteristic tremor taking place when he attempts to raise it still higher; can walk tolerably well; treatment continued.

February 7th: Continued improvement.

February 14th: Eating and sleeping as good as before attack.

February 28th: Steady improvement in gait and speech.

March 10th: Doing well.

March 17th: Dose increased one drop every other day.

March 21st: Has regained self-confidence.

April 4th: Walks miles; does not have to use cane; no longer drags his foot. Secondary contraction of a slight degree has taken place in the fingers only. Students not familiar with the case could not detect any depression at angle of the mouth. Sight in left eye much improved, though outer half is still impaired. Tongue points nearly in the median line. Patient steadily improving.

CASE 2. J. R., aged thirty-five, tobacconist; personal and family history good; he has never had syphilis nor rheumatism. His trouble began about eighteen months ago with the characteristic pains in the lower extremities. These pains were felt at irregular intervals, sometimes daily and sometimes not for the space of a week or ten days. A short time afterward he noticed the change in gait. He also had frequent attacks of sick headache, three or four seminal emissions weekly, and difficulty in holding the urine. These symptoms ceased about four months ago, but the ataxia has greatly increased, and the pains still continue. He has noticed in the last three or four months a decline in the sexual power. He was admitted into the hospital February 1, 1894. The skin, reflexes, and the knee-jerk were normal; there were no sensory symptoms; he had the Argyll-Robertson pupil; co-ordination was so imperfect that he was unable to stand with the eyes closed, and the feet together; and he could hardly make his way from one place to another.

In treating this case I started February 28th with eight drops of the mercuric bromide of gold and arsenic three times a day. From March 14th to April 1st the dose was increased one drop each day. The total quantity given during thirty-three days being 1,245 drops, an average of thirteen drops at each dose.

CASE 3. W. P., aged thirty-two, painter; personal and family history good. His illness dates back to February 1, 1892; the symptoms being constipation, difficulty in voiding urine, stiffness and soreness in the knees. In a short time the legs became useless. In six weeks he was about on crutches, being at the time under treatment at Hot Springs. He entered the hospital July 7, 1892; at that time there was very little sensation in the left leg, the condition of the right being about normal. He had incontinence of urine and feces.

Commencing February 7th I gave him five drops of the mercuric bromide of gold and arsenic after meals; the dose was increased daily until eleven drops were being given, making the average dose given during the course ten drops thrice daily. Bladder and bowel symptoms restored.

CASE 4. Mr. S. (I will refer to this case briefly, not being able to get the patient to come here to-night.) There was loss of sensation in right side of face; difficulty in co-ordination; ptosis; chronic constipation; loss of bladder control; reflexes lost. Four months' treatment was followed by complete relief.

It could hardly be coincident that such decided changes for the better should have occurred in so short a time.

The following, from American Druggist and Pharmaceutical Record, may be of interest as to value of various preparations of "arsenauro" on the market:

The widest difference exists between the preparation made after this formula and that of Dr. Barclay, which it is presumably supposed to duplicate. With a view of ascertaining the chief points of difference between the two compounds (Dr. Barclay's Solution of Bromide of Gold and Arsenic and that made according to the formula referred to) we subjected each to a number of tests. Dr. Barclay's solution of bromide of gold and arsenic, which we shall refer to as "Sample A," and the preparations as made by the Notes on New Remedies formula, which shall be referred to as "Sample B," were each tested roughly for hydrobromic and arsenic acids by ferrous sulphate. The addition of this reagent to sample A almost decolorized the solution, but did not otherwise affect it; while sample B acquired a milky hue which changed rapidly to a dirty green color, with the formation of a dense precipitate of ferrous arsenite $\text{Fe}_3(\text{AsO}_3)_2$. This preliminary experiment was convincing that solution A differed in chemical constitution from solution B.

In order to avoid the imputation of arriving too hastily at a conclusion, additional tests for the detection of arsenic were made as follows: After the precipitation of the gold in solution B by metallic zinc and passing chlorine gas through the solution in excess, removing the liberated bromine by carbon di-sulphide (the latter, together with free chlorine, being afterward expelled by heat), the solution was neutralized by aqua ammonia, and the following tests were applied:

1. Test solution of silver nitrate. This applied to the neutral solution (solution B), yielded a white precipitate of chloride of silver which was thrown down immediately upon the application of the reagent, and lastly a dark brown precipitate of silver arseniate insoluble in aqua ammonia, thus indicating the presence of arsenic acid.

2. Test solution of plumbic acid yielded a white precipitate of lead arseniate insoluble in water.

3. Test solutions of ammonium molybdate. When gently warmed with this solution a yellow precipitate of arsenomolybdate of ammonium is thrown down.

4. On addition of aqua ammonia, ammonium chloride, and magnesium sulphate to the solution there is yielded a crystalline precipitate of magnesium-ammonium arseniate, $\text{MgNH}_4\text{AsO}_4 + \text{H}_2\text{O}$.

5. Test solution of cupric sulphate. The grass-green precipitate first formed upon the addition of this solution was dissolved in sodium hydrate solution and yielded a precipitate of cuprous oxide, Cu_2O .

The foregoing tests were applied to solution A with indifferent or alto-

gether negative results, and we may therefore conclude that the two preparations are not identical in composition. The results of these experiments would indicate that E. M. Johnson & Co. have discovered some hitherto unknown method of combining bromide of gold and arsenic in staple form.

There have been and are now many preparations on the market which are not solutions of bromide of gold and arsenic, but bromide of gold with hydrobromic acid, arsenic acid, and arsenious acid. In the *Annual of the Universal Medical Sciences*, issue 1891, Dr. Hare, in his article on Experimental Therapeutics, concludes in reference to the action of bromide of gold:

1. Bromide of gold undoubtedly inhibits the cortical motor centers, even when administered in smaller doses than other bromides. After an internal administration of bromide of gold in the dose of $1\frac{1}{2}$ to $3\frac{1}{10}$ grains to the kilogram of the animal's weight, even the strongest and very prolonged electric stimulation of the cortex fails to bring about any epileptic seizures. To obtain the same result from bromide of potassium, the latter should be introduced in the dose of $9\frac{1}{4}$ to $10\frac{3}{4}$ grains to kilogram, while bromide of sodium should be given in still larger quantities.

2. Irritability of individual motor centers, as determined by the appearance of contractions in corresponding muscular groups, is depressed by bromide of gold in but trifling degree.

3. Excitability of the white substance of the motor region remains intact.

4. The drug seems to affect mainly the tracts of communication between individual motor centers as well as between remote areas of the cerebral cortex.

5. It does not appear to possess any special cumulative action. This action can not be due to the amount of bromine present therein since it is the weakest (55 per cent by weight) of the three, while bromide of sodium is the heaviest (77.7 per cent), the potassic salts standing midway.

In the *Annual of the Universal Medical Sciences*, year 1892, an authority states, "Better results can probably be obtained if the drug be given hypodermatically."

The opinion as to the efficacy of gold in disease has been indeed varied. In an article in *Medical Record*, Vol. 34, p. 802, September, 1888, this appears, referring to article on gold and arsenic, "It is highly digestible," while farther on this startling statement appears,

"There is probably not a sound clinical observation showing that gold possesses any special therapeutic efficacy in any disease."

The older therapeutists limit its field of usefulness. Bartholow speaks most highly of it, recommending the double chloride in waning sexual force, in granular and fibrous kidney, in melancholia, in atonic dyspepsia, catarrh of bile ducts, etc. The claim made that it produces auric fever has not been observed, nor have I seen any evidences of gastric irritation. In a case of syphilitic nodules with marked cephalalgia there was a rapid subsidence of the nodes and relief of the head by the mercuric bromide of gold and arsenic, proving clearly that there is a most decidedly alterative influence exerted.

The fact that the sedation produced by the bromide of gold is greater than that by the salts of potash and soda should give it a front rank in the treatment of epilepsy, fortified by the alterative influence of the gold and the tonic effect of the arsenic. It has long been recognized that arsenic is the treatment for chorea. In three cases of this disease treated by bromide of gold and arsenic the results were all that could be desired.

The solutions of gold as prepared by Johnson & Johnson :

1. Increase the appetite.
2. Do not irritate the stomach nor disturb the bowels, seeming to stimulate peristalsis without sufficient irritation to produce purgation.
3. Do not exert decided powers of alteration, sedation where there is irritation, yet stimulation to waning powers.
4. Are indicated in the majority of diseases affecting co-ordination.
5. In fact entitled to a trial in all neuroses.

LOUISVILLE.

ACUTE ENDOMETRITIS: OSMOTIC TREATMENT.

BY WALTER S. WELLS, M. D.

Upon the subject of endometritis the writings of prominent gynecologists show the usual diversity, some treating of it under the heading of Uterine Leucorrhœa, some under the title of Uterine Catarrh, while still others classify it as Internal Metritis.

Our object is to present an epitome of the subject of this title, as gathered from the best authorities, and by thus refreshing the memory of the reader show the adaptability of the osmotic treatment to inflam-

matory conditions, not only of the uterus itself but of the entire system of the intrapelvic adjuncts.

As this subject is handled with unusual care as to presentation of what is regarded as authentic by Thomas and Mundé, in their lately revised edition of "*Diseases of Women*," we take the liberty of quoting from them.

While Thomas and Mundé classify endometritis or inflammation of the lining membrane of the uterus into general, cervical, and corporeal, they do not seem to be so certain as to their being always distinctly separate.

Acute inflammation of the lining membrane of the uterus is not uncommon, and may run a rapid course, not being recognized until the consequences, suppressio mensium and congestive dysmenorrhea follow and subside into the chronic form.

Endometritis often proves the source of sudden menstrual disorder and the cause of violent leucorrhœa.

The lining membrane of the cervix, or of the body alone, or the entire uterine mucous tract may be affected, its site being governed by its cause. Thus, that form which immediately follows parturition or abortion (endometritis of subinvolution), or results from gonorrhea, is likely to expend its force upon the mucous tract of the cervical canal, while that which is due to sudden checking of the menstrual flow is more likely to be confined to the body.

While, theoretically, a sharp limitation of the catarrhal condition may be made between the cavities of the body and the cervix uteri, a line can not be so closely drawn in practice.

A catarrhal inflammation of the body of the uterus will usually spread to and by direct contact infect the mucous lining of the cervical cavity. But the converse does not hold good in nearly the same proportion.

A cervical endometritis dependent upon the laceration of the cervix, for instance, very commonly is limited to that part only, the mucous membrane of the body of the uterus remaining perfectly healthy.

The causes of acute endometritis are direct injury, cold from exposure during menstruation, constitutional disease of septic or asthenic character, general anemia, vaginitis, specific or simple, excessive venery, suppression of menstruation.

Examples of direct injuries which may produce acute endometritis are the introduction of the uterine sound, or the intra-uterine pessary; the employment of tents, or the application of chemical irritants; surgical operations, and intemperate coitus.

It is probably, in some instances, through the instrumentality of this disease that those cases of fatal peritonitis which result from tents, sounds, and intra-uterine pessaries occur.

Inflammatory action is first set up in the lining membrane of the uterus, and thence passes through the fallopian tubes to the peritoneum.

Specific vaginitis or gonorrhea will sometimes pass up into the cervix and body of the uterus and out through the fallopian tubes, creating pelvic peritonitis of a most violent character. Even simple vaginitis when of very severe form may produce endometritis, though this is uncommon.

The peculiar blood-state attending upon and forming an element of measles, scarlatina, variola, and roseola, and exerting its influence on all the mucous linings of the body, will sometimes result in general endometritis and general anemia, and the hemic condition resulting from phthisis very frequently does so. Exposure to cold and moisture, great mental anxiety, or any other influence which suddenly checks the menstrual flow, not infrequently produce this disease.

At the moment of exposure suppressio mensium or congestive dysmenorrhea may take place, and from that time endometritis may exist. When we consider that such a sudden check of menstruation will sometimes result in hematocoele of fatal character, it is certainly not to be wondered at that it may likewise produce endometritis. Excessive venery, even where no violence is done to the uterus, may produce it by the prolongation of intense congestion of the organ kept up by this act. The acute stage of this disease may occur frequently, but it is usually complicated with pelvic peritonitis or cellulitis.

Generally, when endometritis comes to the notice of the physician, it has become subacute or chronic, or the disease of the endometrium is secondary to inflammation of the uterine adnexa or the pelvic peritoneum. The disease demonstrates its presence in the non-puerperal uterus without any very violent symptoms. Ordinarily the patient complains of pain, weight, and dragging in the pelvis; burning and pricking in the vagina; pain in the back, groins, and thighs, and vesical and rectal tenesmus. After four or five days there is usually a discharge of a viscid liquid, which in eight or ten days becomes creamy, purulent, and perhaps bloody; tympanites and sensitiveness upon pressure, and uterine tenesmus or "bearing-down" pains show themselves in severe cases, and rarely there is active diarrhea due to reflex irritation of the rectal nerves.

Should the fluid discharged from the vagina be allowed to come in contact with the skin of the vulva, abdomen, or thighs, an intense cutaneous irritation is likely to be established, which may go on to excoriation and the development of pruritus of great severity.

Thomas and Mundé refer to two cases of prurigo thus excited which spread over the entire body. If the reaction of this purulent discharge be examined into, it will be found to be sometimes acid, at other times alkaline. The explanation of this is that the discharge from the uterus is alkaline and that from the vagina is acid. If the irritating uterine fluid have established (as it very generally does) vaginitis, the acid secretion from this source overcomes the alkalinity of that from the other. If, on the other hand, no severe vaginitis exist, the discharge from the uterus presents its ordinary alkaline properties. Upon examination by touch the os uteri is found gaping, the cervix swollen and very sensitive to pressure, the body slightly enlarged, and the organ lower than normal in the pelvis.

Through the speculum the cervix is found to look swollen, edematous and red, and from the pouting os pours forth either a clear, albuminous-looking fluid muco-pus, or long tenacious shreds of cervical mucus. Explorations of the uterine cavity should as a rule be avoided, but if the probe is passed it should be used with the utmost gentleness, and never unless passed through the speculum. The sound as ordinarily used is prohibited. The gentlest use of the probe will detect great sensitiveness throughout the uterine cavity, and the slightest touch upon the fundus will cause the discharge of a few drops of blood. The engorgement may be so great that even the use of the speculum will cause blood to flow from the cervix.

Bimanual examination will discover the uterine body enlarged and tender upon pressure, and the entire history of the case will have to be taken into account to avoid diagnosing it as one of acute parenchymatous metritis instead of endometritis.

As to differentiation, the only diseases with which this would with much probability be confounded are para-uterine cellulitis, pelvic peritonitis, and acute vaginitis. In the first two named constitutional disturbance is generally more marked and excessive than in this. They are often preceded by chill, and usually by more intense febrile action and greater elevation of temperature, but there may be exceptions. The last is very generally attended by a lesser degree of general disturbance. No positive conclusion can usually be arrived at without

physical exploration, which in pelvic inflammation will discover fixation of the uterus, hardening of peri-uterine tissue, and excessive tenderness when parts other than the uterus are compressed by the conjoined manipulation.

Generally in cellulitis and peritonitis there is but a moderate increase of uterine or vaginal discharge.

Pathologically acute endometritis, in its first stage, consists in an intense and active hyperemia of the mucous lining of the uterus, which is red, swollen, edematous, and softened. Scanzoni is quoted as having described the surface to be spotted from congestion of the capillary network around the mouths of the utricular follicles. When the second stage has set in the cavity of the uterus is found to contain an excess of mucus or creamy-looking pus, which may be more or less mingled with blood. If the cervix be involved in this inflammatory engorgement, the mucous membrane of its vaginal portion participates markedly, as the speculum will disclose. In the discharge the microscope reveals the presence of cells, and sometimes entire casts of the utricular follicles.

According to Scanzoni and Klob the layers of muscular substance of the uterus, immediately under and next to the inflamed mucous membrane, participate in the engorgement, infiltration, and softening. Acute endometritis rarely occurs before puberty. Its complications may be metritis, urethritis, vaginitis, cystitis, vulvitis, salpingitis, pelvic peritonitis, and eruptive disorders, the results of scratching excited by pruritus vulvæ.

Acute endometritis when occurring in the non-puerperal state may, without treatment even, go on to recovery, generally lasting from a month to six weeks, and perhaps passing through its whole course without its existence having been diagnosticated. It may become chronic and slowly progress to recovery, but it has been known to end in death, the inflammatory action spreading along the fallopian tubes, causing salpingitis, which, by resulting in free purulent discharge into the peritoneum, established inflammation there.

In the treatment it is generally conceded that complete rest, physically and mentally, must be secured by the administration of opiates, and the patient should not be allowed to get out of bed even to attend to the calls of nature during the continuance of the acute stage. Opium by mouth, or *per rectum*, is preferred to secure nervous quiescence and relief from pain, the dose and its frequency of repetition depending upon the severity of the suffering. When the latter is relieved the

opium is to be discontinued. The bowels should be kept soluble by saline laxatives. Over the hypogastrium place a soft, quite warm poultice of powdered linseed, and cover with oiled silk to preserve its heat and moisture, and renew at least every twelve hours. In lieu of poultices hot fomentations may be used and similarly covered with oiled silk, the flannels being re-saturated in hot vinegar, wrung out, and reapplied as their heat abates. The patient should not be annoyed by the application of cups or leeches.

The diet should be chiefly milk, and of this preferably Kumysgen, which is a pure milk reduced to a powder in accordance with the recommendations of the Section on Dietetics of the American Medical Association at their meeting in 1888. Should more substantial food be required to meet the anemia often present its assimilation will be greatly promoted by following each meal with a tablespoonful of the Elixir of Peptenzyme, which elixir is composed of the seven digestants furnished by nature to digest mixed foods.

As soon as the secretion of muco-pus begins to show itself the vagina is to be gently syringed out three times daily with very warm water containing one ounce of zymocide to the quart, in a fountain syringe, the patient lying on a rubber sheet at the edge of the bed, the sheet folded so as to convey the water into a receptacle. Astringent injections are injurious, as also are the application of leeches to the cervix. Caustics are also prohibited.

This disease being pre-eminently one of intense and active hyperemia of the mucous lining of the uterus, reduction of the engorgement and asepsis of the discharge is the important indication, and may be accomplished by osmotic treatment in conjunction with the foregoing recommendations.

Having pursued syringing for few days with warm solutions of antiseptics, a sponge of fine texture and thoroughly sterilized by the Marchand com. peroxide of hydrogen method, is to be saturated in a solution of zymocide, $\bar{3}$ ss.; med. peroxide hydrogen, $\bar{3}$ ss.; and warm water, $\bar{3}$ ij. The sponge, holding what it can of this mixture, is to be passed by aid of a dressing forceps through a widely opening speculum directly in contact with the os uteri. After about twenty-four hours the patient is to withdraw the sponge by means of its string attachment, and have it washed and cleansed in warm water holding a small amount of ammonia, and hung up to dry for similar medication and replacement by the physician.

If the disease is confined principally to the cervix, we have found it advisable to introduce the nozzle of an applicator syringe containing equal parts of peroxide hydrogen and warm water, the nozzle being covered with a thin layer of aseptic cotton, so that the cotton being introduced within the cervix a slight pressure of the piston will saturate the cotton, which may be held there a few minutes, and reapplied until the pus is neutralized by the peroxide of hydrogen, the latter being indicated by the foamy discharge. This topical use of the applicator syringe is to be followed by the sponge, medicated, applied to the os and left for from twenty-four to thirty hours as before, that is, every other day.

We have found it beneficial in these cases to alternate from time to time the sponge treatment with that of a roll of aseptic lamb's wool saturated with glycozone, to procure profuse exosmosis of serum which unloads the capillaries and relieves the engorgement. This should be resorted to at least once a week, then resuming the medicated sponge and the endosmotic action of the antiseptic fluids. The sponge should not be used for applying glycozone or glycerine in any form, as this makes the sponge corticous and brittle. The lamb's wool or aseptic cotton should have a string attachment as well as do the sponges for their easy removal. The wool or cotton is not to be used again, as the same sponge may be after it has been cleansed in weak aqua ammonia, the cheapness of the former not requiring such economy.

Torpidity of the bowels should be prevented by an occasional calomel triturate followed by a saline laxative.

NEW YORK.

SIMPLE ACUTE PNEUMONIA.

BY J. E. GARDINER, M. D.

Pneumonia is one of the most dreaded diseases that the medical profession has to encounter. I have no respect for nor patience with the microbe theory of the disease, and discard the idea of any germ being the specific cause of pneumonitis. If there be such a thing in the production of this disease, the germ must be of very unstable existence, since the trouble generally terminates favorably in a few days under judicious treatment. During several years of my professional life I have had quite an extensive experience with pneumonia in

its varied forms in our southern climate, and my treatment, based upon the principle elucidated and inculcated by Prof. J. B. Elliott, of the Tulane University of Louisiana, has been invariably successful in my hands when begun in time for human aid to avail.

The pathology of pneumonia being well understood, it is strange that there should be so much confusion in the minds of practitioners regarding its treatment. If we stop to consider the ulterior disorganizing effects of pneumonia upon the circulatory and nervous systems from the accumulation of effete material, we will be appalled at the idea of administering to a patient respiratory and cardiac depressants.

The primary effect of pneumonia is to compromise respiration by diminishing the lung capacity; and the secondary effect is to weaken the heart's action by the undue accumulation in the blood of carbonic acid gas and its noxious influence upon the nerve centers. The direct and only cause, in otherwise healthy patients, of death from so-called heart failure is that the blood being deficient in oxygen (the chief stimulating element to the heart) and the nerve-centers paralyzed from the carbonic acid retained in the blood the nerves of that organ are obtunded and rendered non-responsive. Respiratory and cardiac stimulants are therefore required, and not paralyzers and depressants, as are so commonly given to the detriment and oftentimes death of the patient. Nature becomes thoroughly aroused, and calls forth all of her reserved force and energy and makes her best effort to stay the invader and repair as rapidly as possible all damages done. Now, if we administer opium, with its baneful influence to further assist the disease in compromising the respiration, and cardiac depressants to further weaken the heart, it certainly requires no great medical acumen to foresee the combined evil results accruing from such an irrational course of treatment.

Nature is the doctor, and the course she pursues in her efforts to repair damage will serve as a clew to the physician in his selection and application of the proper remedies. For these reasons we should give respiratory stimulants—*nux vomica* and *belladonna*—for the double purpose of sustaining and aiding nature in oxidizing the blood and eliminating carbonic acid gas; secondly, cardiac stimulants to maintain the proper function of the heart; thirdly, diffusive stimulants, as carbonate of ammonia and compound spirits of ether, which have and exert at the same time a specific and salutary effect upon the pulmonary mucous membrane. I believe that small and frequently repeated doses

are more efficient than larger doses at longer intervals. As iron is the oxygen carrier in the blood, I give iron phosphate in combination with the phosphates of sodium and potassium. The sodium phosphate is given for its influence upon the secretory and glandular systems. Sulphate of soda in small quantities should be given to maintain the proper condition of the bowels. Turpentine stupes or camphorated oil on flannel cloths around the chest is soothing and comforting to the patient. Concentrated food is given every two or three hours regularly throughout the disease. A strict observance of the above method of treatment will give gratifying results. Complications and contingencies must be met and treated promptly, as each case may require. An abundance of fresh, pure air is essential. The fresher and colder the air the more oxygen will it contain. As that element is the chief stay and vitalizer in pneumonia, fresh air must not be forgotten in the management of this disease. The truth of this suggestion is proved by the additional fact that in summer time, with a rare atmosphere, the mortality of this trouble is greater and its treatment more difficult than in cold weather when the air is more condensed.

BANDERA, TEXAS.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, April 6, 1894, Dr. T. L. McDermott, President, in the chair.

Dr. A. M. Vance (Gall-stone): I would like to show three or four little specimens of gall-stones removed from a woman twenty-six years of age, with the history of acute pain and beginning sepsis, with a tumor low in the abdomen. The gall-bladder was found very much enlarged, filled with mucus, and subsequently quite a quantity of pus came from the deeper parts of the sac. The diagnosis was not made absolutely before the incision, though after the woman was on the table the consensus of opinion of those present was that the trouble was in the gall-bladder. I also show you several specimens from a patient operated upon some years ago. The case was similar to the one I have just reported, and my only object in mentioning it is to show the different character of the calculi.

*Stenographically reported by C. C. Mapes.

I do not believe there were any gall-stones in the cystic duct, since excessive flow of bile has occurred so soon. The obstruction was probably inflammatory rather than from stones. A great deal of bile came away at the forty-eighth hour. The woman has made an uninterrupted convalescence.

DISCUSSION.

Dr. William Bailey: In the last case reported by Dr. Vance, the difficulty in diagnosis was considerable I have no doubt; from the tension of the muscle on that side it was difficult to define, but after she was under the anesthetic it was possible to make a more accurate conclusion as to where the tumor really was. However, the incision on account of the uncertainty was a little high for the appendix and a little low for the gall-bladder. It was really a compromise. If there had been a positive diagnosis the incision would have been properly made, and Dr. Vance could have more readily explored the opening of the cystic duct into the gall-bladder, but from the position of the incision, without enlarging it too much, he was not able to reach so as to thoroughly explore the cystic duct.

The essay was read by Dr. Thomas Hunt Stucky; subject, Some Remarks concerning Mercuric Bromide of Gold and Arsenic, with especial reference to its use in the Treatment of Neurotic Conditions of Specific Origin. [See page 465.]

DISCUSSION.

Dr. S. G. Dabney: I saw the fourth case referred to by Dr. Stucky; there was complete paralysis of the motor oculi nerve. The gentleman of course had ptosis, and there was also some protrusion of the eyeball. At the time I saw him there were also some symptoms of beginning locomotor ataxia, not very marked at that time but perhaps developed later. I have no doubt the agent mentioned by Dr. Stucky is valuable in many cases, but I have in mind cases similar to those he reports that recovered under large doses of the iodides. Two were cases of complete paralysis of the motor oculi nerve which made a good recovery. One of them was a woman who also showed some symptoms of locomotor ataxia. I wish Dr. Stucky had been more explicit in his remarks concerning hemianopsia in the first case he reported. I presume it means half vision of each eye, that is, one half the field of vision of each eye is lost. Dr. Stucky will recall a case of this kind occurring in

a lady that he saw some time ago, who had paralysis and well-defined hemiopia. She finally recovered from the paralysis, but the half sight remained the same.

This symptom of hemiopia may be due to disease of the optic nerve tract, or it may be due to a lesion of the cortex of the brain. As a rule it is not improved even when the other nervous symptoms disappear. When paralysis, for instance, disappears, hemianopsia as a rule remains. It is not a frequent symptom, and I think it rather peculiar that I have seen two or three cases in my experience in Louisville.

Dr. William Cheatham: I think Dr. Stucky's cases are all too recent to show what effect his treatment is going to have, except in the third case where improvement has been so marked. I would not be inclined to attribute the improvement entirely to the remedy. Especially in locomotor ataxia it is about as uncertain as in epilepsy when you are going to have improvement, and whether this improvement comes from the remedy. I have seen cases where the eye muscles were involved in locomotor ataxia and the patients have gotten apparently well, so far as the eyes are concerned, without any treatment. We all know that locomotor ataxia has periods of rest, especially in the early stages of the disease, and where the eye muscles only are involved, these cases often apparently completely recover without any treatment. I call to mind now the case of an army officer, who afterward went east, and I took him to see Dr. Hammond, also Dr. Knapp, who diagnosed locomotor ataxia. This man at one time went four years between attacks. He had double vision, and sometimes complete ptosis. He had specific locomotor ataxia. The next attack came on in about two years, with complete ptosis of the left eye only. On account of these periods of rest it is, as I stated before, very hard to determine just what effect any remedy is going to have; therefore I think Dr. Stucky's cases are too recent to say positively that the medication is the cause. His report, however, is one of much interest.

Dr. Bailey: Dr. Stucky has presented us with an exceedingly interesting clinic, and I want to say, moreover, that I am gratified because it is in a department of therapeutics that has been very uncertain in its effects. Certainly the cases presented to-night, with the history as detailed, should induce us to give the remedy a trial at any rate. I am sure that Dr. Cheatham is right as to the uncertainty of these cases, the progress and natural history of them is so marked even under the most thorough treatment. I have had a case of epilepsy on bromides with-

out an attack for eighteen months, and believed that the remedy did a great deal of good; very much to my mortification he had an attack yesterday, and one again to-day, notwithstanding he has been kept upon the bromides constantly.

Dr. Cheatham: I have used the bromide of gold and arsenic in one case; the man has atrophy of both optic nerves and is also said to have syphilis. He has been on antisyphilitic treatment, however, with no improvement. He took the gold I think three weeks, but there was no perceptible change. Vision is reduced to $\frac{6}{200}$. He has also had two courses of strychnia nitrate, hypodermatically, with no improvement.

Dr. H. A. Cottell: I am sorry that I came too late to hear the essay, but take it that the remarks of Drs. Bailey and Cheatham set forth the facts pretty clearly. Their experience is the common experience of every man who treats such cases. The issue is very uncertain. A case of locomotor ataxia came under my care four years ago; the patient went through the hands of several physicians, growing worse all the time, and was finally forced to go to bed. He had lightning pains which were so severe that he was kept under the influence of morphine for a considerable time. Although the case was non-syphilitic the patient had been given iodide of potassium, in fact I believe almost every thing recommended in such cases except bromide of gold and arsenic. He finally went to Pennsylvania to see a priest who was said to work miracles. He was given a prescription of wine of coca and nitroglycerine, and made a seemingly complete recovery, although to the practiced eye his gait is still ataxic.

I had another case in the person of a Jewish man; a well-marked case of locomotor ataxia of syphilitic origin, at least such a history was elicited. This man seemed to be improving under iodide of potassium, and coming to me one day he asked if I thought it would do him good to go to the country; I told him I thought it would, if he would simply go there and rest, that he must not take much exercise. He went down in Breckinridge County, and while there fell in with an old-fashioned German doctor who told him that his disease was not ataxy, but inflammation of the spine. This doctor put him under treatment, applying poultices and plasters, and at the same time drugging him with herbs. The man grew rapidly worse, returned home, became bedridden, and I believe died. He was able to get out of his bed but a few times after this trip to the country. What this country doctor did to make this patient grow so suddenly worse, I can not understand. These two cases represent

the two extreme conditions. We have all seen ataxic symptoms progress and diminish, oscillating between these two extremes. We see, however, many cases that have been moderately ataxic for years, and it is to be hoped that something has been found that will make an impression upon the lesions which lie behind the symptoms. One of the most discouraging things in the life of the specialist in nervous diseases is that there is so little real therapy in the practice. In consequence of this the temptation to substitute quackery in this department for the principles of scientific medicine is great indeed. I am sorry to see that some eminent men in this country have found the temptation too much for them. If any remedy can be found that will make an impression on sclerosis, posterior, lateral, or disseminated, of non-syphilitic origin, we all shall hail it with delight. At the last International Medical Congress, Strümpfel read an able paper on Posterior Sclerosis, taking the ground that the only curable cases were those of syphilitic origin. I hope that the bromide of gold and arsenic is the remedy we have been looking for.

The heavy metals like gold, platinum, etc., have very little medicinal effect. Chlorine will combine with gold in the presence of nitric acid, forming normal salts, and a double salts, chloride of gold and sodium, analogous to potassio-mercuric iodide, has been made. Auric iodides, cyanides, and sulphides are well known; but a bromide of arsenic and gold, with or without mercury, is a compound not hitherto contemplated in chemistry; nor is it possible to see how by any adjustment of valencies a molecule containing these atoms in chemical combination could be constructed. The compound is proprietary, its method of preparation is a secret, and it deserves to be viewed with scientific suspicion. As to what becomes of this medicine, whether it is eliminated by the kidneys as bromide, or whether the arsenic is turned loose in the system, or the gold eliminated as chloride, would be interesting knowledge. Dr. Howard some time since, speaking of the treatment of goitre by iodine under electrophoresis, alluded to a point which will perhaps help us out. The iodide of potassium, being driven in by the galvanic current, was decomposed and active iodine turned loose in the substance of the goitre. It is a well-known fact that many results are obtained from elements in what we call the nascent state, and many chemical combinations may be affected in that way that would not obtain under different conditions. It is perhaps possible that the gold may carry an atom of arsenic into the economy in com-

bination and give it up in such way as to cause it to be more effective than it would be in any other way.

Dr. Stucky : My sole object in showing these cases and in bringing the subject before the Society was not to place myself on record that gold would cure these conditions, but it struck me as being a very peculiar coincidence that such marked results and such marked improvement should be manifested in so short a time. Out of a series of eleven cases of neurotic troubles in hospital and private practice, I have been surprised at the amount of improvement. One case is a very prominent man in a fashionable portion of the city, who has been living for a long time almost the life of a child, and who has been under the treatment of many neurologists. While visiting his wife, she heard of my having treated another case, and suggested the same remedy be given this gentleman. He had incontinence of urine, incontinence of feces, entire loss of control of the lower half of his body, lightning pains in the legs and over the region of the stomach, rest disturbed, and had been in about this condition for four years. I first gave him ten drops of mercuric bromide of gold and arsenic three times per day. He had to be lifted in and out of bed ; his legs would become crossed in bed and his wife would have to uncross them at night ; he would urinate involuntarily during the night ; he was afraid to go out in his carriage fearing he would have an involuntary evacuation of the bowels. He was given this treatment for two months without any apparent improvement, when I increased the dose one drop per day until I secured the effect of the arsenic ; the dose was increased until he took twenty-five drops three times a day. He waked up one night complaining of a tingling sensation all over his body ; I then ordered the medicine reduced to ten drops three times per day. His incontinence of urine has ceased ; he has perfect control of the sphincter ani ; he has considerable motion and strength in his legs, and can get up and down without assistance. There has been no further improvement, but certainly this has been a great advance over his previous condition.

There is another point about this solution that has struck me with force, that is its possible or probable usefulness in the treatment of glandular and joint troubles. It combines well with lime and salicylate of calcium. I have just had a case of enlargement of the cervical glands with calcareous change, which has been treated with bromide of gold and arsenic with a decided reduction in the size of the glands. His father gave a syphilitic history, and this patient had been treated

for syphilis. I have also tried this remedy on other cases of glandular enlargements, and have been surprised at the rapid subsidence.

Another case, a prominent man who returned from Hot Springs, some time ago, much emaciated, taking daily 450 grains of iodide of potassium; he also had unsteady gait and other nervous symptoms. The iodide of potassium was discontinued and bromide of gold and arsenic administered. While there has been no marked improvement in his gait, there has been decided improvement in flesh.

Another case gave the history of pulmonary hemorrhage, spitting of blood, yet there is no marked change to be found in the lung. She has been placed upon this agent, starting with four drops, increasing one drop every day until she is in better condition and weighs more than she has in six years.

These can not be coincidences, and the cases I have referred to demonstrate the usefulness of this agent in the treatment of syphilitic lesions. We have had several cases of syphilis in the clinic at the college, that I did not refer to in my paper, treated with this agent, in all of which there has been a more rapid subsidence of all symptoms than usually obtains under the use of mercury alone. There has not been the marked pyalism, nor the marked retraction of the gums, and the eruption has dried up very rapidly. The fact, then, that it enters into combination with lime, that it enters into combination with mercury in the form of a solution, and is probably eliminated by the kidneys, shows that it has a decided advantage over the old chloride of gold and sodium, which was not readily assimilated. Experience thus far has proven that this solution has a great advantage over iodide of potassium in that it does not produce gastric irritation. None of the cases in which it has been used have exhibited any gastric symptoms; it has produced no interference with digestion or the secretions, and it not only seems to have an especial action upon the constitution, but proves to be a general tonic in its effect throughout the entire alimentary tract.

I have simply shown these cases with the hope that it might be of service in suggesting a new field of experiment. There is one more point upon which I would lay special stress. I made the error myself a year ago when the first specimen was sent to me by Dr. Barclay, of Pittsburgh. We are inclined to discard its use too soon. We should push it as we do iodide of potassium for its full effect. I believe it is a good addition to our therapeutics and that its outcome is destined to be a great one. Certainly it can not be explained that these three cases I

have exhibited, and the others that have been treated, would have improved so markedly without its use. It has not been my experience that cases of locomotor ataxia suddenly turn in three or four weeks without treatment into a condition of decided improvement. It has not been my experience that within three or four days patients showing evidences of involvement of the lateral columns begin to assist themselves. It is not my experience that cases of paresis of a certain lot of muscles begin to take on action, and that patients state they can feel a tingling in that part, which I do not attempt to explain; nor do I attempt to localize its action exactly in these cases, I simply present the patients and give my experience in their treatment to emphasize my statement that I believe this remedy has a wide field of usefulness in the cure of neurotic conditions.

I have used bromide of gold and arsenic in two cases of incontinence of urine; in one of these there has been decided relief. I would like to call especial attention to its use in the treatment of choreic conditions; we get not only the benefit of the arsenic, but the sedative action of the bromide and alterative effect of the gold. I have used it with success in three cases of chorea, without any other treatment.

H. A. COTTELL, M.D., *Secretary.*

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

London Water; Surgical Appliance Society; A Long-lived Family; The Proposed Pasteur Institute; Sanitary Institute to Meet at Liverpool; Report of the Cremation Society; A New Purgative; A Magnificent Offer to Manchester; An Extraordinary Feeder, etc.

The report of the analysts of the London water supply for the past month states that of the one hundred and seventy-five samples examined all but five were clear, bright, and well filtered. The slight turbidity in four of these five samples was due to the disturbance due to the laying of a new main. The deficiency of rainfall for the first quarter of 1894 was 0.76 inches as compared with 1.07 inches for the corresponding quarter of 1893.

There is stated to be in London, irrespective of those indebted to the dental art, a vast population, numbering probably 200,000, who require the aid of surgical appliances of various kinds, including artificial legs, arms, eyes, and feet. That useful charity, the Provident Surgical Appliance

Society, has held its twenty-third anniversary festival. There was a large attendance, including several eminent surgeons. The chairman said that the society's affairs were admirably managed; they had no staff or big building, they had no debt, no funded property, but had to depend entirely, year by year, on public subscriptions. Since organization over 80,000 people had been helped. Dr. Thomas Bond, in responding, observed that there was no charity, even in London, which for so small an outlay did so much good.

Dr. C. Theodore Williams, in proposing the health of the treasurer of the Royal Meteorological Society, who has entertained at dinner on attaining his ninety-second birthday, gave some interesting particulars of the longevity of the Perigal family. It appears they have been remarkable for longevity. Mr. Perigal's father, who was ninety-nine and one fourth years of age when he died, was one of thirteen children, nine of whom attained respectively their sixty-fourth, sixty-seventh, seventy-seventh, eightieth, eighty-eighth, ninetieth, ninety-fourth, ninety-seventh, and one hundredth year, the last five averaging ninety-three years one hundred days. A brother of the treasurer, Mr. Frederick Perigal, now in his eighty-fifth year, was present at the dinner.

The inhabitants residing in the neighborhood of the site of the proposed Pasteur Institute in Chelsea have attended at the Home Office to protest against its erection on the Chelsea Embankment. They said that the building which was sought to be erected by the British Institute of Preventive Medicine would depreciate the property in the neighborhood, and would be a possible source of infection to the inhabitants. Mr. Asquith, who met the deputation, in reply said, that by giving a certificate of registration to an institute of this kind the Secretary of State did not in the least degree fetter his discretion as to the experiments he would license in it. These licenses were granted to individuals for particular classes of experiments after careful consideration. He had no power to prevent the erection of this building, and he understood the site had been conveyed to the Association. If the question of registration of the building as a place for experiments on living animals came before him, he would give due weight to the considerations they had laid before him. The Secretary of State had an absolute power of veto and control over any class of experiments for which permission was sought, and it would be his duty in considering any such application to consider also whether the place in which these experiments would be made was a fitting one. As at present advised he had no intention of granting licenses for experiments in the inoculation of hydrophobia.

The Sanitary Institute has accepted an invitation from the Lord Mayor and citizens of Liverpool to hold its next Congress and Exhibition at Liverpool from September 24th to 29th. The work of the Congress will be divided into three sections and five conferences. The Council invite papers on subjects relating to health and sanitary science, the papers being limited to twenty minutes reading. It is also arranged that a short abstract must accompany every paper, both for the convenience of the press at the

Congress and for insertion, subject to the approval of the Council, in the journal of the Institute, should it not be deemed advisable to publish the paper *in extenso*. No previously published paper can be read. Papers read at the Congress can not be published by the authors, except by permission of the Council. The Council reserve to themselves the privilege of printing any paper read at the Congress, either wholly or in part, or of refraining from the publication thereof if they see fit.

In the annual report, just issued, of the Cremation Society of England, of which Sir Henry Thompson is president, the Council are well pleased with the efforts during the past year. It appears 101 bodies were cremated in the society's crematorium, Woking, Surrey, as compared with 104 during 1892. The decrease, however, is only apparent, because a crematorium now exists near Manchester, where 30 bodies were burnt during the past year, as against 3 during 1892. Altogether during 1893 131 bodies were cremated in England, as against 107 in 1892. Since 1885, when the crematorium was started at Woking, 458 bodies have been disposed of there. When the crematorium was first started at Woking many of the local residents were highly indignant; now the building arouses not the least excitement or interest.

It is pointed out by Mr. Huxley that nature's plan for curing insomnia is to limit the supply of oxygen to the blood, as the cat and dog bury their noses in some soft hollow in their hair or fur; birds put their heads under their wings and soon fall asleep. Mr. Huxley suggests that those suffering from insomnia should cover their heads with the bed-clothes and breathe and rebreath only the respired air; when drowsiness is produced it is easy to go on sleeping, and the bed coverings can be pushed aside and as much fresh air obtained as is needed.

A new purgative has been extracted from senna, and is called cathartic acid. It is said to be a dark yellow powder, only slightly soluble in cold water, but easily soluble in hot water, and giving a slightly acid reaction to litmus paper. At the present time a dose of 0.05 to 0.15 of a gram has the effect, in the course of five to seven hours, of producing a copious loose or liquid evacuation. In healthy people, who have taken this product as an experiment, it has frequently produced slight colic, but in persons afflicted with chronic constipation these colics generally do not ensue. There is no disagreeable taste attached to the drug.

At the opening of a bazaar in aid of the Manchester Southern Hospital in the new medical school of Owen's College it was announced that the trustees of the David Lewis bequest had made them the magnificent offer of £70,000 under certain conditions of amalgamation between the Southern and St. Mary's hospitals. Thanks to this, they would be in a position to build a maternity hospital and a general hospital for women and children second to none in England. The scientific and sanitary arrangements of the new hospital would be, according to modern lights, perfect. The arrangements for the treatment of suffering people would of course have the first care,

and after that would be considered the facilities for medical education, the training of midwives and nurses, all of which would be in advance of any thing heretofore attempted in the north of England.

William Sutton, a native of the county of Kent, has just celebrated his one hundred and fifth birthday. He has been married three times and is the father of seventeen children. He served twenty-one years in the army, and was discharged in 1841, receiving a pension of ten pence per day.

An inquest has been held on the body of a man whose custom it had been to enter a public house, profess to be very hungry, ask for something to eat, and then offer for a few coppers to amuse the company by devouring a plate, saucer, a clay pipe, or any thing else they liked. Invariably somebody was foolish enough to give him money, when he at once faithfully carried out his promise. On one occasion he once offered to drink a pail of water and afterward eat the bucket for the moderate sum of one shilling. He died of indigestion in the London hospital, when the doctors found in his intestines a bullet, twenty or thirty pieces of cork, twenty pieces of tin foil, a piece of string eighteen inches long, with corks attached, and a piece of leather nine inches long with a hook at each end. Just before his death he told the house surgeon that among things he used to swallow for a living were chains, sovereign purses, French coins, half pence, pipe stems, and newspapers.

LONDON, May, 1894.

Reviews and Bibliography.

A Dictionary of Medical Terms, etc. By ROBLEY DUNGLISON, M. D., LL. D., Late Professor of Institutes of Medicine and Medical Jurisprudence in the Jefferson Medical College, etc. Twenty-first edition, thoroughly revised and greatly enlarged, with the Pronunciation, Accentuation, and Derivation of the Terms, by RICHARD J. DUNGLISON, A. M., M. D. 1181 pp.

It was with a feeling of regret that those who for a generation had regarded Dunglison's Dictionary as a standard, as indeed had the generation before them, saw the scepter gradually passing from it to younger rivals. They often asked why some friend did not revise it, saving all its good features, and adding a system of pronunciation, with such other improvements as the advance of learning suggested.

At last the task has been undertaken by a son of the distinguished author, and the prized old work makes its appearance in a thoroughly revised and greatly enlarged and improved edition.

Among the important new features is pronunciation, the most urgently needed, which has been supplied by means of a simple and obvious system of phonetic spelling, clearly indicating at a glance the proper sound of a word.

The derivation of words has been given very fully, thus furnishing the greatest aid in recollecting the meaning of words and giving the power of analyzing and understanding those with which we are unfamiliar. We think, however, the reviser has erred in giving the English spelling of Greek words. One who has not curiosity enough to learn at least the Greek alphabet and the powers of the Greek letters is not apt to profit greatly by being furnished with a key to the derivation.

The definitions, which are the essence of all dictionaries, are clear and full, the characteristic which has always placed this work in the front rank. In typography it is not behind any other dictionary on any subject now before the English-speaking student. It would indeed seem that in dictionary making, at least for medicine, with such works as this provided, the workers are for a season entitled to a rest.

D. T. S.

Anatomy, Descriptive and Surgical. By HENRY GRAY, F. R. S., Fellow of the Royal College of Surgeons; Lecturer on Anatomy at St. George's Hospital Medical School. The drawings by H. V. Carter, M. D., Late Demonstrator of Anatomy at St. George's Hospital, with additional drawings in later editions. A new American from the thirteenth English edition. Edited by T. PICKERING PICK, Surgeon to and Lecturer on Surgery at St. George's Hospital, etc. 1100 pp. Price, with illustrations in black, cloth, \$6; leather, \$7; colored, cloth, \$7; leather, \$8. Philadelphia: Lea Brothers & Co. 1893.

In modern times no book on any medical subject has held the position of a standard so long as Gray's Anatomy. For logical arrangement, clear, terse, pointed, and yet full description it is the peer of any work on any scientific subject. A pioneer in helpful drawings, it is still in the van, and leads in every improvement. Indeed, it is of itself a complete atlas of anatomy.

Dear to so many thousands for old and helpful associations, it will be no hard task for Gray to remain in the lead so long as it shall find revisers comparable in aptitude to the present editor.

The physician or student who requires but one work on anatomy will not need to ask which, nor will those who will have more than one need to ask which one to add to. The work is admitted to be easily first on anatomy in any language.

D. T. S.

Clinical Diagnosis. By ALBERT ABRAMS, M. D., Heidelberg. New York: E. B. Treat. Price \$2.75. Cloth.

A neatly arranged and very serviceable book for students and young practitioners, and even the older boys would be benefited by a perusal of its pages. The first chapter, upon "Taking the Case," is really very practical, and would be an assistance to most any doctor. Reading it over carefully would most likely improve the routine method of the majority of practitioners. The author, in his preface, puts himself on the proper footing with the critical reader by using this quotation, "I have gathered a posie

of other men's flowers, and nothing but the thread that binds them is mine own."

It is in the nature of a compend, but it strikes the reviewer as being above the average book of that class. The charts and tables are especially useful.

Chapter VI, "Examination of the Heart," is well up to date, very suggestive, and fairly accurate. A good point well brought out, which is commonly overlooked, is that the superficial cardiac dullness really is made out by percussion at the left edge of the sternum, and not over the bone at all, since in percussion over the sternum the blow is conveyed by the bone to the adjacent lung structure.

Chapter XII, "The Nervous System," is treated more at length than books of this class generally have space to give.

The general usefulness of the book has been somewhat marred by the author's crowding too much matter into such small space, and consequently much fine type had to be used, which is hard on the eyes. Considering the publishers charge only two hundred and seventy-five cents for two hundred and seventy-five crowded pages, it is certainly cheap at the price.

E. M.

A Manual of Obstetrics. By EDWARD P. DAVIS, A. M., M. D., Professor of Obstetrics and Diseases of Infancy in the Philadelphia Polyclinic. Second edition, revised and enlarged. With one hundred and thirty-four illustrations and sixteen full-page plates, several of which are colored. 351 pp. Price, \$2.50. Philadelphia: P. Blakiston, Son & Co. 1894.

A Manual of Practical Obstetrics this work is rightly called, and after one has never been chosen for a work in this department of medicine. There are a few students and not a great many physicians who take deep interest in philosophical discussions and moot points in obstetrics, and for such monumental works like Cazeaux are a delight. But the average physician and nearly all students will none of this, and for this class here is a work to their choice. It is the plain gospel of obstetrics, without dead timber, without padding, and without a line that can well be spared, though nothing of practical value seems to have been left out. It is not only the gospel, but the orthodox gospel, and just the book for the student.

D. T. S.

A Manual of Minor Surgery and Bandaging, for the Use of House Surgeons, Dressers, and Junior Practitioners. By CHRISTOPHER HEATH, F. R. C. S. Tenth edition. 389 pp. Price, \$2. Philadelphia: P. Blakiston, Son & Co. 1894.

A work on any branch of surgery bearing the name of Christopher Heath would carry with it the presumption of excellence. When to this is added the assurance that it has reached the tenth edition, we ask no further guarantee of its worth. There may be other works as good, possibly better, but whoever masters this work and makes it his guide may well trust the approval of his work to his clients and his conscience.

D. T. S.

Abstracts and Selections.

ON A CASE OF HYSTERICAL ALEXIA, CURED BY SUGGESTION.—(B. A. Pope, B. S., M. D.) The case is of especial interest on account of its clear-cut character and because of its easy and prompt cure by suggestion.

M. S., thirteen years of age, complained of inability to read or sew, and also of indistinct vision at a distance.

The menstrual flow was being established, and the little girl was under the care of Dr. W. E. Brickell for her general health.

The child had always been bright, alert, and cheerful, and learned with ease until the establishment of the menstrual function. Since that time she had become quiet, depressed, and complained of almost constant headache. The little patient was referred to me by Dr. Brickell on account of her inability to read, and also because of the sudden dilatation of the pupils noticed at times.

At the time I first saw her she was markedly anemic, appeared to be rather indifferent to her surroundings, and complained of dull headache.

There was also inequality of the pupils and mild photophobia, the latter only noticeable in bright light.

Vision = $\frac{2}{200}$ each eye without glasses, and she was unable to read type smaller than Snellen No. 3.

When I tested each eye separately, excluding the other with my hand, she saw no better.

But when I placed a trial frame on her, excluding the other eye with an opaque diaphragm, she would see $\frac{3}{60}$, and read Jaeger No. 1. This was true of each eye separately, and of both together, as long as the trial frame remained on her face.

On removal of the trial frame, making no other change, her vision fell to $\frac{2}{200}$ again. The same good result was obtained when I placed weak convex or concave glasses, or a plane glass before the eyes, but she made no pretense of seeing better when the glass was one which really must have made her vision worse.

Under atropine I found H = 0.50 D. each eye. I repeated these observations on February 28th, and found exactly the same condition.

I then informed the child's guardian and Dr. Brickell of the condition, and also of the deception I intended to practice upon her.

I prescribed + 0.25 Dsp. for each eye, and gave a weak cocaine and boric acid solution to be dropped into the eyes three times a day. The glasses were to be worn constantly. I gave + 0.25 Dsp. because it was within the degree of hyperopia, and for fear some indiscreet person (optician, for instance) might tell her that the glass had no power. A plane glass gave the same effect, but was open to the latter objection.

I carefully impressed upon her the *strength* of the glass, and also that it was one with which any one ought to be able to read and *must* see well near and far.

Since that time she reads and does fancy work, sees well at a distance, has no photophobia, and no pupillary disturbances, and her general condition is improved.

Such cases are not remarkably rare, and are often overlooked.

The child had evidently associated with children who wore glasses, and, in the peculiarly susceptible condition of puberty, became convinced that glasses were necessary to good sight, and especially to reading and sewing. It will be noticed that the case is not like hysterical amblyopia.

It is more like some recent German cases, except that those are usually in boys under the age of puberty, and so lack the distinct sexual side.

The cure was, of course, purely one of suggestion, as such a glass would have no real effect.

Vision without glasses is now better.—*New Orleans Medical and Surgical Journal*.

HYDRASTININE HYDROCHLORAS, U. S. P., 1890.—Among the novelties of the recent "United States Pharmacopeia" is a salt of the artificial alkaloid, which was first produced by Martin Freund by the oxidation of hydrastine. It is a yellow, crystalline, somewhat deliquescent powder, which is exceedingly soluble in water. At present writing, although its medical properties have not yet been thoroughly worked out, it bids fair to be a very important addition to the resources of the profession. Its physiological and therapeutic range seems to be very wide. Kiselew has used it to some extent with alleged success in epilepsy, having been led to its trial by the previous observations of Professor Tarchanoff that it is capable of arresting convulsive attacks of epileptic guinea-pigs, and by his own experiments, which show that it decreases the excitability of the psychomotor cortex of the brain. Its action upon the spinal cord seems to be that of a depressant; at least Marfori and Archangelsky assert that the paralysis and loss of reflex activity which is produced by poisonous doses in the lower animals are of centric origin; and it is even claimed that it is the natural antagonist of strychnine.

Our present knowledge indicates that hydrastinine belongs to the group of poisons which have a universal action upon muscle-fibers, so that it affects the voluntary muscles and also the muscular coats of the intestines and the muscle-fibers connected with the circulation. It certainly would, in overwhelming dose, paralyze these muscle-fibers, but, as with strophanthus and most other known muscle-poisons, the period of paralysis is preceded by a long period of excitement. Thus, according to Von Bunge, the intestinal peristalsis is markedly increased by the salts of hydrastinine, while all observers have noticed that the blood pressure is greatly raised. The increase of the pressure seems to be in part due to the direct stimulation of

the heart, and in part to the outcome by the stimulation, contraction of the blood-vessels.

Both Marfori and Von Bunge have found that the alkaloid greatly increases the amount of work done by the isolated frog's heart placed in a William's apparatus or other form of artificial circulation. It is true that in poisoning with the drug there is a final fall of the arterial pressure, which is in part the result of lack of heart-power; but this failure of the heart seems to be caused indirectly, and not to be the result of an immediate action of the drug upon the viscus, since Marfori has shown that even when the pressure is very low artificial respiration will restore it to the norm. Evidently the heart-depression at such times is due to an excess of carbonic acid, which has been accumulating in the blood.

That the blood-vessels are contracted during the period of high pressure has been shown by the experiments of Archangelsky and of Marfori. Using Roy's oncometer, Marfori has determined that the drug greatly decreases the size of the kidney; and asserts that the contraction of the vessels in the kidney may be so powerful as even to arrest secretion. Moreover, in the elaborate experiments of Archangelsky, it was shown that the contraction of the vessels is chiefly of peripheral origin; in other words, is chiefly due to a direct action of the drug upon their muscular coats.

Hydrastinine is evidently a heart tonic, and although it has been introduced into therapeutics for other purposes, it will probably prove to be a valuable remedy in cases of cardiac weakness, and certainly should be tried with this object. It is plainly a much safer remedy than the alkaloid hydrastine, out of which it is produced and which it seems about to replace, in that even when in toxic dose it does not directly depress the heart.

Its influence as a calmative depressant of the brain and spinal cord, conjoined with its stimulant action upon the heart and arterioles, should render hydrastine a very valuable remedy in cases of general feebleness and lack of circulatory power occurring in hysterical women and men; and when to these powers are added the extraordinary influence it possesses over the uterus, its probable importance grows. In all forms of menorrhagia, whether due to simple atony, to fibroids, or even more severe organic disease, hydrastinine is a very valuable remedy.

My own experience accords with much that has been determined in finding that it is distinctly more powerful than ergot. The arrest of the hemorrhage is usually so prompt that it hardly can be due simply to vascular contraction; and there seems little reasonable doubt that the alkaloid is a powerful ecboic, notwithstanding the contrary assertions of Von Bunge, who bases his belief simply upon the fact that in two experiments he failed to provoke abortion or uterine contractions in pregnant animals by large or even fatal doses of the alkaloid. It is notorious, however, that even ergot frequently fails to act, and Archangelsky has found that in pregnant puerperal bitches, cats, and rats hydrastinine will usually produce pronounced rhythmic contractions of the uterus. Moreover, Dr. Faber, as the result of

a number of trials upon women, states that hydrastinine given hypodermically during labor very notably increases the force and length of the uterine contractions, causing a spasm which affects all portions of the uterus, and is similar in character to that provoked by ergot. In some of the cases there was uterine tetanus, lasting as long as fifteen minutes. Dr. Faber also asserts that distinct contractions can be produced in the unimpregnated womb.—*H. C. Wood, University Medical Magazine.*

THE PROPHYLAXIS OF BLENORRHEA NEONATORUM.—Von Erdberg (*Centralblatt für Gyn.*, 1893,) discusses methods for the prophylaxis of ophthalmia neonatorum. He believes with Von Brunner that only those cases can be counted blenorrheal in which the Neisser's gonococcus is found—an opinion which has been recently combated by different writers. Infection at birth he considers of rare occurrence, and intra-vaginal infection has not been proven.

The average time of incubation of the disease was from two to five days; cases in which suppuration begins at a later period after birth must be ascribed to late infection. The best prophylactic he thinks is a 1 in 5,000 sublimate solution; it causes scarcely any reaction. Oppenheimer has shown that the gonococcus is killed by a solution of the bichloride of mercury in strength of 1 in 30,000. In fully seventy-five per cent of new-born children no prophylactic instillation is called for. The thorough disinfection of the vagina before head comes down makes it unnecessary to use any thing but distilled water in the eyes. The author, however, thinks it wise, as a precautionary measure, to cleanse the external surfaces of the eyelids and the immediate surroundings with a 1 in 1,000 sublimate or 1 in 4,000 iodotrichloride solution as soon as the head is born. In the presence of gonorrheal discharges this treatment is imperative.—*British Medical Journal.*

SLEEP, SLEEPLESSNESS, AND HYPNOTICS.—Dr. S. V. Clevenger believes that it is doubtful if the bromides become substitution compounds in any of the animal tissues, further than to pervade the secretions and lessen activity by taking the place of nutrient materials. If bromide salt ingestion passes a certain point, distressing insomnia may result, probably from the anemia exceeding what ordinarily occurs in sleep. Chloral in large doses may fail to do any thing but cause distressing wakefulness and gastric irritability, especially in senile debility associated with heart disease; waste is but increased by chloral. Ergot has an indirect hypnotic effect, through its contraction of the blood-vessels, upon the muscles of which it acts directly. Phenacetine and phenocoll are in effects sedatives. Sulphonal has the advantage, that it can be given in hot tea or coffee without the patient's knowledge. Trional and tetronal possess few, if any, advantages of the original drug (sulphonal), while it is claimed that the latter sometimes caused vomiting. Chloralamid requires slightly larger doses than chloral, but it produces a sleep more closely resembling the physiological than the

latter, and it possesses the additional advantage that it does not irritate any mucous membrane. Apparently it is not contra-indicated by a weak heart or respiration. Of course, as to the time of its action, personal idiosyncrasy determines differences, but to no greater degree than with chloral, the average limit being from one half to three hours intervening between the dose and its effect, the duration of sleep varying from two to nine hours. Hypnotic action may be classified as (1) derivation, such as removing irritative, quantitative, or qualitative causes; (2) elimination of quantitative or qualitative causes, as of some toxic agent; (3) reconstruction, by resupplying parts in states of defective nutrition; (4) minimizing activity until rehabilitation can overtake waste with supply; (5) restoration of normal function, as with digitalis or alcoholics. The ideal sleep-procurer would be one which abstracted nothing from the nervous system which it contained normally, nor added thereto any thing deleterious; and as sleep is a process of repair or feeding of the nerves and their ganglionic centers, still more effective would be whatever caused sleep by repair of such waste; and unless credible evidence to the contrary appears in the course of time, we are in the possession of such a hypnotic in chloralamid.—*Journal of the American Medical Association.*

HYDROCELE IN THE FEMALE.—Lammert gives some valuable information on this interesting question. The term correctly signifies a collection of fluid in an imperfectly obliterated canal of Nuck. This form of hydrocele is usually detected in pregnancy and childbed. According to Wechselmann, it has been found twenty-two times on the right side, seventeen on the left, and in two cases on both sides. Lammert has observed this condition in a nullipara, aged thirty-nine. It formed an enormous swelling, as big as a man's fist, in the left groin, pyriform, elastic, transparent, and fluctuating. It was irreducible, and there was no impulse on coughing; it reached as far as the labium. On incision a pint of serum escaped; the parts were explored, and the hydrocele was found ending as a blind pouch at the internal abdominal ring.—*Centralbl. f. Gynäk.*, No. 30, 1893.

RESTRICTION OF TUBERCULOSIS.—The recent declaration by the Boards of Health of Michigan and New York of the contagiousness of tuberculosis is of weighty import. The deduction naturally follows that physicians and officials of the State will unite in the endeavor to blot this fearful malady from the face of the earth. To accomplish this, if indeed it can be brought to pass, will require a complete change in our present relations to this class of unfortunates. It means, first of all, isolation complete and continuous; the immediate destruction of all sputum, towels, napkins, and the thorough sterilization of all utensils used by the patient. It also means that none shall kiss the dying sufferer. It means that the railways of the country must furnish separate cars, or at least special apartments, for the transportation of consumptive invalids. It means that the law shall step in and

prohibit the marriage of a consumptive to a healthy person, or the union of two consumptives. Already, in New York City, a special hospital has been secured in which all tubercular cases are to be treated, and the registration of all tubercular patients is required. In Philadelphia the question of the registration of tubercular patients was recently discussed by the College of Physicians, and the proposition was defeated. The fact that all attempts to find a cure for tuberculosis have failed makes preventive measures doubly important. When it is remembered that one seventh of all deaths are due to this malady, the measures proposed are robbed of their harshness. Only by such heroic means will we be able to check the advance of this terrible scourge. With the increasing attention which preventive medicine is receiving from the intelligent public, as well as the profession, we look for an early change in the management of cases of tuberculosis.—*Tri-State Medical Journal*.

CROUP AND DIPHTHERIA.—The necessity, for all practical purposes of sanitation, of considering all cases of croup as laryngeal diphtheria, is confirmed by the investigations of the New York Health Board. In an examination of two hundred and eighty-six cases of so-called membranous croup, the Klebs-Loeffer bacillus was found in two hundred and twenty-nine cases, showing that eighty per cent of these cases are laryngeal diphtheria. These figures certainly warrant the suggestion that all cases of membranous croup should be regarded as pharyngeal diphtheria, and controlled accordingly. The necessity of health boards employing the services of an expert bacteriologist seems urgent. Much uncomfortable controversy between physicians and health commissioners might be avoided if this means of producing better understanding were provided.—*The Physician and Surgeon*.

BRONCHO-PNEUMONIA AND CLIMATE: A LOCAL STUDY.—By J. L. Kerr, M. D. (London *Lancet*, March 3, 1894.) In this article the author takes the position that broncho-pneumonia in children is but a modified form of acute croupous pneumonia in adults. He differs very decidedly in his description from the classical one found in the text-books of the day. He makes it run a regular course and gives it a premonitory period with a crisis about the eighth day. His treatment is simple. He pins his faith principally to salicylate of soda to cure the disease (as if a self-limited disease needs to be cured), wine of ipecacuanha in emetic doses every two hours to keep the lungs clear of mucus, and in the cases needing it stimulants as they are indicated.

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KENTUCKY STATE MEDICAL SOCIETY.

The thirty-ninth meeting of the State Society was most fruitful of work and brilliant in social features. The attendance was almost full as to members, with many visitors to swell the number. The number of papers was perhaps the largest ever presented, and the discussion so liberal that the coming volume of Transactions will display a plethora most complimentary to those who cater to the Society's good.

The new feature of substituting three or four leaders upon stated topics for the reports of standing committees upon all branches of medicine was a complete success. Four topics, one in medicine and two in surgery, were got before the Fellows in good style, and were discussed with fluency, zest, and brevity. In view of the brilliant working of the new, the old system will never be restored.

Dr. Stewart presided with dignity. His rulings were just, and his disposition of the work in hand rapid.

The social side of the programme was in even balance with the scientific side. The rare beauty of the town and the hearty hospitality of its people will never be forgotten by the favored Fellows of the Society.

Arrangements for the next meeting have been made wisely, and a profitable season may be looked for at Harrodsburg next year.

In bestowing the presidency upon Dr. J. B. Marvin, of Louisville, the Society honors one of its ablest members.

The American Practitioner and News has secured a full report of the meeting, which will appear in early coming numbers. The proceedings will be published *in extenso*, and nearly all the papers will be put before our readers in full text. And here we rest, with thanks to the authors for the courteous promptness with which they have put their manuscripts at our disposal. In essaying to be the organ of the Kentucky State Medical Society the American Practitioner and News will spare neither labor nor expense to perform worthily its part of the contract.

WHAT THE "GRAND OLD MAN" THINKS OF DOCTORS.

At a meeting held in London a few weeks since, for the purpose of creating some fitting memorial of the life and work of Sir Andrew Clark, Mr. Gladstone was the chief speaker. Among other appropriate things he said :

The profession itself is one with regard to which it is impossible, I think, not to be conscious that its position in our generation, and in some generations previous, has been a position continually advancing and continually widening. The other learned professions undoubtedly had a start of the medical profession. Four or five hundred years ago property was of more worth than human life, and physicians were little heard of. But the position of the medical profession to-day is becoming one of vital and commanding interest to the whole of society, and I anticipate that that interest must continue. While wealth increases, while inventions and discoveries increase, wants will increase and enjoyments will increase ; and in connection with those wants and enjoyments there will, I fear, be a corresponding increase of infirmity and disease, and the medical profession braces itself to grapple with the situation which has been created, and continually advances in knowledge, credit, and importance. My own life has been long enough to enable me to witness, and in some degree to measure, the change that has taken place. I have had the good fortune of knowing many eminent and distinguished men in the profession during the last three-score years, and I have seen also a great change in capacity, in attainments, and in competency to deal with the difficult, the almost insoluble problems that are continually presenting themselves to the mind of the medical man.

It appears to me that it was eminently desirable that, in a time like this, a man such as Sir Andrew Clark should rise to the head of his profession. For, after all, we require something more than knowledge, something more than skill. We require great devotion to the purposes of the profession ;

and that devotion never, I think, was exemplified in a more remarkable manner than in the career of Sir Andrew Clark. He loved his profession with his whole heart and soul. While engaged in that profession he loved it not only with sincere and cordial but with chivalrous devotion. We need not say that the age of chivalry is altogether passed so long as we have among us men of the type of Sir Andrew Clark.

I think the profession has done well in taking by common consent Sir Andrew Clark as the typical man, the representative of all that is best and noblest in the profession and its purposes. Others may judge better than I can of his scientific ability. What I have seen is his patience, his thoroughness, and his absorption in the care of his patient as if that one case was all with which he had to occupy his mind. I am sure that whatever happens; whatever may have been the past advances of the medical profession, and they are great; whatever may be the future advances of that profession, and they will be greater still, there will never come a time when the profession will not be justly satisfied and glad to have recorded upon its annals a name such as the name of Sir Andrew Clark.

If Sir Andrew Clark had not the *monumentum aere perennius* in what he has done in medicine, his name would be fixed in the annals of history by this loving tribute to his worth from the greatest living Englishman. But greater than any thing that personal affection can claim is the ex-Premier's description of what the typical physician is, or should be, and his intimation that in the course of his long life he has known many such.

In these days, when medicine is in so much danger of being degraded to the level of a trade, it would be well for at least the younger physicians to ponder deeply Mr. Gladstone's words.

We have known in our own brief time some doctors whose lives have approximated, in zeal and sincerity of purpose, that of Sir Andrew Clark; but, alas! their number is not now on the increase.

LAST month we rendered statement of account to a number of our subscribers who are in arrears. We have heard from a great many of them, but there are a large number who have so far failed to reply. We trust that these will let us hear from them before July 1st.

Notes and Queries.

THE EFFECTS OF ERYSIPELAS ON EPITHELIAL CANCER.—(James Collins, M. D., Philadelphia, Pa.) About eighteen months ago my attention was called by Mr. M. to an ulcer nearly opposite the ear, on his right cheek. This ulcer was one and a half inches in longest diameter, one inch in the shorter, presenting an oval with irregular edges. The discharge was slightly purulent, tinged with blood. The granulations were soft, and bled on the slightest touch.

Mr. M. stated that twenty years ago there appeared at this point a small elevation, which frequently formed a scab, which every ten or twelve days would fall off and then re-form, giving but little trouble and receiving but little treatment.

Nineteen years ago he was treated for a time with ointments and lotions, also some medicine was administered without special benefit. He was then assured that this was skin cancer and incurable. This ulcer gradually increased in size and depth. Some benefit was derived from a lotion of zinc sulphate and salt, dissolved in water to make a mild astringent solution. The ulceration, however, continued, giving inconsiderable pain but much annoyance by its presence. The good man quietly accepted the situation, seeking only palliation and relief from pain.

About November 12th he suffered from an attack of erysipelas of the face. This ran no unusual course, spreading rapidly from tip of nose over scalp to nape of neck. The efflorescence was followed by desquamation. The external dressing was of ichthyol and lanolin, which seemed to give relief and comfort.

As the erysipelas faded out, and desquamations following, the ulcer seemed to assume a more healthy appearance. Granulations of a more normal character developed, and in about two weeks the ulcer was entirely healed. The cicatrix on March 1st is slightly indurated, but smooth and firm, presenting the appearance of normal cicatricial tissue.

This case is reported without special comment. Dr. Coley, of New York, has written on this subject with considerable interest.

The writer is well aware that a single case from the practice of a surgeon is but of little value isolated and alone, but, hoping that others may add their experience and observation, the case is reported for consideration. *Kansas City Medical Index.*

HUMAN OSTRICHES.—The death of a "fakir" who earned his living by swallowing all kinds of non-edible articles occurred recently in the London Hospital. At the autopsy the house-surgeon found intestinal perforation

and peritonitis, due to the presence of a piece of string with corks attached, a piece of leather with a hook at each end, a bullet, tinfoil, and quantities of loose corks.

The *Lancet* takes occasion to cite various cases of extraordinary gourmandizing *apropos* of the London Hospital case.

"There are," it says, "recorded instances of men who have devoured the whole of a sheep or of a sucking-pig raw; and there is one at least of a man, an attendant at the Jardin des Plantes, in Paris, who ate the whole of a dead lion. Another Parisian, by name Tarrare, who made a livelihood by swallowing corks, pebbles, apples, and such unconsidered trifles, would occasionally, to satisfy a bestial craving, eat a live cat, and appears finally to have taken to cannibalism. Francis Battalia, who ate half a peck of small stones with his beer every day, served as a soldier in the seventeenth century, and refused other rations. Whatever his particular method of deceit was, he seems to have imposed on the medical profession of the day, and as we are not informed how big the stones were it is possible that they were small enough to cause no inconvenience as foreign bodies, and may have aided in stomachic trituration. The feats of John Cummings, an American sailor, at the beginning of this century, are as wonderful as any, and are generally received as authentic. It appears undoubted that this man swallowed thirty-five clasp-knives, and that, although in the end he died in great agony in Guy's Hospital, he lived ten years with a considerable though uncertain number of clasp-knives in his stomach."

Glass-eating is one of the favorite forms of abnormal indulgence on the part of traveling fakirs in this country. Clay-eating was at one time an established institution among certain classes of "poor whites" in the South. We believe that under better conditions of existence the custom has been largely abandoned. The clay was supposed to have some nutritious properties, but in fact its effect at first was to lessen the normal pangs of hunger. Later, the clay-eater acquired a degree of fondness for this form of diet.

The fatalities from swallowing inorganic objects for the purposes of a show have become now so numerous that boards of health or the anti-suicide law might properly be invoked to prevent such dangerous and idiotic exhibitions.—*Medical Record*.

HOMEOPATHY, A NEW DEFINITION.—Prof. W. F. McNutt, of San Francisco, observes that homeopathy may be a religion, but that it certainly is not a science, and that as a religion it is accepted by faith, and faith asks no evidences. The lately endowed homeopathic college at Chicago, with its professors who are exponents of and believers in the thirtieth decimal dilution as the acme of therapeutics, warrants us in believing that it should be classed with Christian science and other faith cures. The difficulty with the laity consists in the fact that homeopathy is such a comprehensive term and made to father so many shades of that ism that it is next to impossible for them to know in what homeopathy really consists, just as we ourselves

would be at a loss were we asked as to what constitutes a homeopathic physician. A professional friend was lately dismissed from the treatment of a chronic case as the family wished to give homeopathy a trial. The homeopath simply followed the former treatment and the family was satisfied. Now, we don't know whether our friend is a homeopath or the homeopath is a regular, or which is which. Another professed homeopath claims that he followed "allopathy," however, without ever having studied it, until his conscience reproached him with being guilty of so much poisoning; since the awakening of that conscience he claims to have adhered to homeopathy. This individual, however, uses more of the coal-tar derivatives on one patient than we would use on twenty, so that if homeopathy means *similia similibus curantur*, or whether it stands for small doses and high dilutions or high triturations, or whether it means that its professor gives no medicine that produces any dangerous symptoms, we can not see how the individual can practice or call himself a homeopath.—*National Popular Review*.

THE CHOLERA.—With the return of warm weather the cholera has made its reappearance at various centers in Europe. The epidemic which began in April at Lisbon has somewhat abated, and is now officially reported once more not to be cholera. Cases have occurred at various places in Spain, but none are officially admitted, so that early quarantine is much neglected. In France cases have occurred in Finistere since the middle of April and number about four cases a day. In Russia the disease is very widely scattered, and has broken out in many of the provinces. Appearing first in the Polish districts and along the East Prussian border, the disease has attained its greatest severity in the districts of Plozk, Radom, and Petrokoff, where the number of cases has already reached several hundred. During the last week there have been reported nearly a hundred cases with twenty-five deaths from Ciecnanowiece, a town thirty miles from the German frontier. In Warsaw there have been about ten new cases with six deaths each day since the first of May. The disease has appeared at Mislowitz and Stettin and throughout the Vistula district. Many town in Galicia have been affected, especially Siczynce and Skala. Turkey, as might be expected, has many centers of infection, none officially recognized. Although the epidemic at Constantinople has been severe, it is now stated to have ceased in that city, and the quarantine has been abolished. Several of the Black Sea ports are now infected.—*Boston Medical and Surgical Journal*.

A CASE OF PSEUDARTHROSIS OF THE UPPER ARM.—In speaking of the methods of treatment in such cases, Von Eiselberg calls special attention to the Gussenbauer clamp, which he considers a simple and efficient method of holding the bones firmly in position. Many complicated methods have been recommended, and in late years methods by Bircher, Wille, Dollinger, Senn, and Cholot. The author considers this method superior to all others on account of its simplicity and ease of application. The clamp consists of

a bar having two prongs perpendicular to it at either end; they are sharp and three-sided.

Two small incisions are made down to the bone, one above and the other below the seat of fracture, and the clamp is driven into place while the ends of the bone are held closely in contact. Five or six sizes should be kept on hand. They have been used with great satisfaction for years in Billroth's clinic. The absolute fixation that is given by the use of this clamp insures a sufficient blood-supply to the lower fragment by giving absolute rest, and the lesser interference of the small points of the clamp than is found in the use of an ivory pin.—*American Journal of Medical Sciences.*

THE PLAGUE IN CHINA.—A terrible epidemic of the plague is now raging in China for the first time in eleven years. The disease is reported by medical observers to be very similar, if not identical with, the Great Plague of London in 1665. The disease appeared first in Canton the 1st of April, and spread with frightful rapidity among the poorer classes until the deaths had numbered many thousands. Some statements put the mortality at 60,000. About the 8th of June the disease appeared in Hong Kong, where it is now epidemic. At first only the natives were attacked, the mortality being about ninety per cent, but finally the European inhabitants have become victims to the disease, and several deaths have been reported. The daily death-rate in Hong Kong is nearly one hundred. In Canton the spread of the disease continues, but the mortality is lessening.—*Boston Medical and Surgical Journal.*

LIGATION OF THE UTERINE ARTERIES IN FIBRO-MYOMA.—Rydygier (*Centralblatt für Gynäkologie*, 1894, No. 13,) thinks it is not sufficient to tie the uterine arteries alone in order to arrest the growth of uterine fibroids and to check hemorrhage; the ovarian arteries should also be ligated, on account of their free communication with the uterine. The latter may be secured *per vaginam*, and the former after opening the abdomen, in cases in which there are numerous adhesions, although in general it is better to tie both from above. The cases in which ligation is indicated are those of interstitial tumors of moderate size, and in which the patient has become so exhausted by repeated hemorrhages that she could not endure a radical operation.—*American Journal of Medical Sciences.*

Special Notices.

CHARLES DAY, M. D., 79 St. Mark's Square, London, says: "I have prescribed your preparation, Iodia, with very satisfactory results. Its power of arresting discharges was very manifest in a case of leucorrhœa and another of otorrhea. In the latter case, the result of scarlet fever in early life, the discharge had existed for many years. The patient could distinctly feel the action of the Iodia on the part, and the discharge gradually dried up."

DR. GRANVILLE L. FOX, Slate Springs, Miss., says: "I have used Papine in two cases of typhoid fever. In all my practice of four years I have never yet found any preparation or combination that acted so admirably as an anodyne. Sometimes I combine it with Bromidia and get the best of results. I expect to keep it on hand from now on, as I do not know of any thing that would exactly replace it in the experience I have had with it."

In a lecture on Degenerations in Obesity. Dr. Clarence R. Vogel, Columbus, Ohio, says: "The most beneficial effects of Phytoline are obtained by the patient taking 10 drops six times daily and large draughts of water three or four times a day, and abstaining from food containing carbo-hydrates, sugars, and starches, all of which will form large constituents of ordinary fattening foods."

I USE Peacock's Bromides with success. In epileptic fits, especially one case of ten years' standing in which I exhausted all remedies at my command, it has proven a valuable remedy, always positive and constant. I cheerfully recommend it to the medical profession.

HORACE C. GEORGE, A. M., M. D.

Altoona, Pa.

IRREGULAR MENSTRUATION, LEUCORRHEA:

R Celerina, 4 oz.;
Aletic Cordial (Rio), 4 oz.

Dose, two teaspoonfuls half an hour before meals.

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DR. E. R. PALMER.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNÂ."

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No. 13.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

THE INFECTING FEMALE.*

BY E. R. PALMER, M. D.

Professor of Physiology and Genito-Urinary Diseases, University of Louisville.

Prophylaxis, so far as venereal diseases go, is a neglected art. A medieval ruler once said to his wicked prime minister, "What do you expect to be your end? will you be hanged or will you die of the pox?" To which query the crafty servant replied, "Sire, it all depends on whether I embrace your morals or your mistress."

Men once jested with venereal diseases and the train of physical ills that follow in their wake much after the manner of the jesters who recently made merry with death at the burial of a Chicago *littérateur*.

To be scarred with syphilis was to be branded with the stamp of physical manhood; while a clap was flippantly, and to its discredit, contrasted with "a bad cold." Then the reaction came, Jenner with vaccination dimmed the luster of Lady Montague's fame. To be scarred with variola or inoculation was no longer almost inevitable. Prophylaxis here got its grand impulsion, and as a logical sequence came social-evil legislation. Conceived for the most philanthropic purposes and environed by the most stringent State protection it nevertheless failed, and that not because of opposition of a religious or so-called moral character, but because of the clinical demonstration here, as in

*Read before the Medico-Chirurgical Society, April 30, 1894. For discussion see page 517.

certain political measures, of the fact that protection does not protect. State inspection of prostitutes is still maintained in certain governments; that it fails of its original purpose and has degenerated into a species of political tax levying I believe to be equally the fact.

The following clipping is to the point in this matter :

There is probably no country in which the province of the so-called Contagious Diseases Act, which relates especially to the inspection of prostitutes, has been so thoroughly carried out as in Germany; nevertheless the commission appointed by the Society of Medicine, of Berlin, with Prof. Virchow as president, recently reported as the result of an investigation that both prostitution and venereal diseases were found to be rapidly increasing in Berlin. For example, the number of regular prostitutes, recognized as such by the police, was, in 1886, 3,006. The number had increased in 1891 to 4,364, an increase of almost fifty per cent. This represents, however, but a small proportion of the women actually engaged in prostitution, as 16,000 women are annually arrested for plying their vocation upon the streets in Berlin, and it is known that a great number of women live lives of prostitution clandestinely; so the committee estimates the total number of prostitutes in Berlin at 40,000 or 50,000.

Some idea of the number of persons who are annually infected by venereal diseases may be gained from the fact that the committee reported nearly 80,000 cases as having been treated at two hospitals alone in Berlin between 1880 and 1889. The fact was also mentioned by the committee that a great number of cases were doubtless not included in this category. They quote the estimate of Blaschko, that one in every nine or ten of the male population of Berlin has been infected with syphilis.

A most convincing evidence of the utter inefficiency of the inspection service in preventing the spread of venereal diseases was shown by the fact developed by the committee, that the naked eye inspection, which has been universally relied upon, detects less than one in five of the cases of gonorrhea, to say nothing of syphilis. By making a bacteriological examination of each case the proportion of prostitutes found to be suffering from gonorrhea was increased from nine per cent to fifty per cent.—*Modern Medicine.*

As scientists, as moralists, as doctors; as a profession laboring for the alleviation and if possible the annihilation of human suffering, it ought not to be necessary for us to assert, knowing as we do the wide-spread and far-reaching evils that go with unclean venery, that the same energy, scientific intelligence, State legislation, and expenditure of money should be here applied as we cheerfully bring to bear for the prevention or stamping out of such diseases as cholera and yellow fever.

I have chosen for the title of this paper The Infecting Female. Leaving out chancroids as a non-specific disease, as one that may and does in unclean persons of either sex arise without venery, the infecting female is one who is, during a more or less limited period of time, capable of transmitting in various ways either gonorrhea or syphilis. We will take up the syphilitic question first. What is a chancre? All definitions of this lesion, much as they may vary in specific detail of characteristics, agree in these two facts, namely, that a typical chancre does not suppurate and is a painless sore. In the male, with a guilty conscience and an organ susceptible throughout almost its entire extent of the closest inspection, the minutest lesion is almost certain of detection. How far from the truth this fact is when applied to the female is, in my judgment, not sufficiently emphasized by syphilographers. That women do have Hunterian chancres, affecting the labial or other external parts, and sometimes of gigantic proportions, we all know, but that a small but potent lesion may lie undreamt of in the many folds of her parts, or an ugly primary syphilitic sore occupy unknown to her one or both lips of the os uteri, are also conditions of very frequent occurrence. The majority of public women who in the sexual act transmit syphilis to the male are wholly ignorant of the fact that they are themselves infected. Possibly, before eruption brands them as diseased, some luckless worshiper at their shrine may have returned with accusations based upon his indurating sore, but so commonly does the male victim attribute his disease to his last and more recent dalliance that only too often does the ignorant agent go on spreading contagion and misery until, coincident with her diminishing or ending infectiousness, comes the tell-tale macular crown of Venus that sends her to the hospital too late for the good of a score or more of her infected patrons.

Were syphilitic women, like syphilitic men, practically always conscious of the existence of their infectious lesion, how much less frequent would infection be! Here, as in so many other phases of her life, is she more sinned against than sinning. Let those who charge her with spreading this vile infection not forget that the man who infected her almost of a certainty knew of his condition, and put that in contrast with her side of the question as I have just stated it. Again should we be thankful, as conservators of health, that the period of infectiousness from the primary lesion is so limited. If all women in reasonably recent and active syphilis were *per vaginam* sure sources.

of infection, there would to-day be a dozen syphilitics among our young men for every one that is. Like the noxious plant, whose fleeting blossom only exhales a fragrance deadly to those who inhale it, syphilis in the prostitute may and does in innumerable instances go on extending its roots into her vitals without infecting those who have commerce with her. The *bête noir* of syphilis is the mucous patch. Like a free lance it knows no law, but early and late must be feared and guarded against as a fertile source of contagion from any exposed mucous surface. Mouth to mouth contagion is only too common, and here it is that the beer- or wine-drinking, cigarette-smoking courtesan, with her mouth full of contagious lesions, furnishes a not uncommon source of danger to the unwary. But enough of this phase of my subject. I touch upon it only to open discussion.

From what I have just read you will probably draw the conclusion that I would intimate that if men were more careful, if men were more honest, syphilis would grow rapidly less frequent. I hold this to be an indisputable fact. But what of gonorrhea? What of it? What is it? At once we encounter the paradox of genito-urinary pathology: Syphilis, with its germ at least not fully demonstrated, universally recognized as a specific infectious disease, and gonorrhea, with its gonococcus of Neisser, still hanging in the midway tract of indefiniteness and dispute. Taylor says, "Women more frequently communicate than receive gonorrhea." And again, "Gonorrhea is a much less common disease in women than in men." And while in pace with the modern trend genito-urinary men want to and hope to class clap as a microbial disease, due to one specific microbe only, clinical evidences keep them qualifying and not infrequently invoking streptococci and staphylococci as possibly agencies in its evolution.

From the standpoint of gonorrhea, what is an infecting woman? This can be answered, if at all, by exclusion only. Was ever man infected by his sweet mate in Arcadia before the Grecian robbers swooped down upon his home and destroyed his happy, pastoral life? I doubt it. Did ever the loyal, broad-hipped matron, with her lusty brood tilling the soil of our own fertile hills and valleys, infect her sunburnt, strong-thewed liege with "a running issue out of the flesh"? I do not believe it. What is gonorrhea? Whatever it is, it is in name and in fact a synonym of filth. Gonococcus or no gonococcus, it comes only from vaginæ that have been polluted by filth germs, whose growth, whose existence is brought about and encouraged by

various of the many phases of living which we call civilization. Accepting the doctrine that gonorrhea is a more or less mixed infection, or strenuously maintaining that ever a clap always the microbe of Neisser, what do we find clinically? An array of cases, of facts that simply make it impossible for us to classify those suspected into the infecting and the non-infecting, and that stand out in broad contrast with the readiness with which syphilis may in the great majority of cases be traced from individual to individual. What then is an infecting female in this connection?

First, one who is herself the victim of an active specific inflammation of the urethra, uterus, vulva, vagina or vulvo-vaginal glands.

Second, one with a chronic gleety discharge from one or more of these tracts, persisting after all active inflammatory symptoms have subsided. In this group should be included cases in which the infecting secretion is confined in its production to the exterior of the cervix and the cervico-vaginal fold.

Third, one suffering from specific disease of the deeper parts, often chronic and, excepting where the tubes are involved, ordinarily painless. Of these, the endocervicitis phase is the commonest and most dangerous, because of the almost certainty of the extrusion of infectious matter during the sexual act, while infecting material from the cavity of the womb proper or from the tubes nearly always needs the aid of the menstrual flux to bring it into the vagina; and,

Fourth, that doubtful class of cases of women who have seemingly to an absolute certainty never been infected, and yet who, with purulent vaginæ or deeper organs, set up in the male a discharge that bears all the clinical features of a typical clap, and is in turn transmissible.

That the sexual organs of this latter class are abnormal goes without saying, and that the vaginæ of lacerated multiparæ nearly always contain pus, to say nothing of the frequency of its presence in otherwise apparently sound canals, are well-known clinical facts. Unclean hands, either the woman's or the doctor's, unclean clothing, unclean gynecological instruments, and, worst of all, that vicious garment, the open drawers, are but a few of the possible sources of vaginal contamination. Yet, with all of these facts, I for one am exceedingly skeptical in the matter of infection from this latter source, that is, from the woman who has herself positively never had the disease.

Of the first group it is hardly necessary to speak. Ordinary experience in vaginal examination and its application to the case is all that is needed.

Of the second, clinical history is necessary, it being almost if not quite impossible to differentiate by appearances simply between such discharge and an innocuous leucorrhea, the gonococcus not being pathognomonically reliable.

The third class is the one to which I would chiefly call attention, chronic gonorrhea of the cervix, cavity, or tubes. Here even the most careful examination frequently fails to show any evidences whatever of disease.

Sometimes the firm pressure of the cervix between the blades of a bivalve speculum will extrude a muco-purulent fluid; but often, in women that are demonstrably sources of contagion, a fixed and sensitive womb, or tubular and ovarian tenderness, and possibly enlargement, or the history of menstrual colic are the only indices obtainable, and frequently these even are absolutely absent. Who then shall, in the face of these facts, declare an accused woman, especially a public woman, to be free of infectiousness? With any of the symptoms just detailed, and a history of prostitution even where a previous gonorrhea is vehemently denied, I for one can not pronounce the woman safe. A case in illustration, and I am done:

B. S., young, vigorous, multipara, had been for two years a kept woman, previous to which she had boarded. Having quarreled with her lover she returned to public life. She applied to me for slight metrorrhagia. At a subsequent examination I found the left vulvo-vaginal gland large, hard, and painless, the vagina dry, pale, and cool. Pressure of the speculum brought out of the cervix about a dram of transparent mucus, flecked with white opaque specks. She denied absolutely ever having had any venereal disease in her whole life. I asked her if men had ever accused her of giving them the clap, and she said they had, and that it was always when she had received them immediately after the flow of her menses. She had then just passed her period. In little more than a week a personal male friend of mine came to me and said, "Well, I've got it. The first time too in months that I've been out. I stayed with B. S. about a week ago. She was just over her sickness, and she has given me a good dose of the gonorrhea, and I have come to you to cure it."

LOUISVILLE.

INCONTINENCE OF URINE IN CHILDREN TREATED WITH ATROPIA.*

BY T. P. SATTERWHITE, M. D.

Incontinence is a malady that is more frequent in boys than girls. It may come on at any period of childhood life, and often continues until puberty if not relieved. Many persons having the control of such children resort to punishment for a cure; the ignorant, and I regret to say more intelligent persons, are often cruel to the little subjects. It should be the duty of all medical men whenever they are consulted on this subject to take especial pains to explain that the trouble is beyond the control of the child, and that punishment is not only fruitless but absolutely cruel, and not unfrequently assists in perpetuating the habit.

The causes of incontinence are numerous, requiring careful analysis to determine the source. Simple enuresis is purely a nervous trouble. That which occurs not only at night but during the day may be caused from some congenital malformation or from reflex trouble. The nocturnal incontinence is far more frequent and less serious than when it occurs both day and night. Some of the causes that produce this affliction are atrophy of the bladder, overflow from vesical paralysis, phimosis or adherent prepuce. Leucorrhœal discharge in little girls, calculus in the urethra or bladder, an impacted fecal mass in the rectum, the round or thread worm or any rectal or intestinal irritation, in fact irritation of the remotest part of the body may cause incontinence. Cystitis will cause loss of control of the bladder, and when severe enough there will be no difficulty in determining the cause in this instance. Indigestion is a prolific cause; excessive acidity of the urine is frequently an exciting cause. Improper feeding at night or late in the evening may produce gastric disturbance which, by its reflex irritation, causes the wetting of the bed. The producers of this serious affection are numerous, and whenever we can not discover the cause our treatment for its relief will have to be experimental.

The general health in all cases should receive our first attention. You can not cure the disease as long as the digestive apparatus is disturbed; there are so many functions of the body and secretions that are deranged by improper feeding that this has to be strictly attended to. Poor health is a potent factor in maintaining enuresis. The child should have liberal but strictly wholesome food, a very light meal for

*Read before the Louisville Clinical Society, April 10, 1894. For discussion, see page 525.

supper, and little fluid during the evening. If there is hyper-acidity of the urine, that must be corrected; in fact we must see that the patient is kept in the best possible general health, and remove any reflex trouble that we can discover or suspect. The treatment by belladonna has been a practice of such long standing that there is not a member of this Society but can remember when he commenced the practice of medicine that that remedy was recommended and used. We all have had various results in its use, but its long-continued employment in this trouble shows its usefulness, notwithstanding the various experiences of practitioners. This varied experience is due, in my opinion, to two causes: one is that the incontinence was not due to a neurosis simply, but to a reflex trouble that required surgical interference, and the other, that the remedy was not pushed to the full physiological action of the drug and continued long enough.

When the smallest physiological dose of atropia is administered the only symptom is dryness of the throat and mouth, possibly some disordered vision. When a larger amount is given this dryness is more intense, and is associated with redness of the fauces, dilated pupils, disordered vision, and possibly diplopia, often from the first, certainly after a short time in all cases; the heart-beat becomes rapid, and after a large dose of the alkaloid exceedingly rapid, and is often accompanied with a peculiar red flush on the face and neck, and may spread over the whole body, and in very severe exhibitions of the rash desquamation of the skin follows sometimes. Intellection may remain perfect, but there is generally some lightness of the head, giddiness, and confusion of thought, as well as a staggering gait. Even with doses that are medicinal there are spectral illusions. Drowsiness is not a general or at all characteristic symptom. When a decidedly poisonous dose of belladonna or its alkaloids has been taken, all these symptoms are intensified, sometimes the patient becomes exceedingly violent, and convulsions may appear, followed by stupor and paralysis. Lividity of the face, showing imperfect aeration of the blood, is not seen in atropia poisoning, except in a stage of most imminent peril. Death is preceded by marked heart and respiratory failure. Upon the muscular structure of the heart itself atropia acts as a depressant, but it will have to be taken in very large amount to be apparent; on the other hand, atropia acts, it is claimed, on the cardiac nerve centers as a stimulant, and unless taken in very large amount it does not destroy excitability of these nerves.

Evidence is directly in favor that atropia in small doses contracts the capillaries, and only in poisonous doses are they dilated.

Atropia acts on the peripheral filaments of the nerves, and it is mainly eliminated by the kidney, and its local action on the nerve filaments of the bladder I have no doubt is one of the modes of relief for incontinence when the interior of the bladder is the seat of the trouble.

We all are familiar with the local action of belladonna to relieve pain, as in myalgia, lumbago, pleurodynia, etc.

In the last eighteen months I have treated some five or six cases of nightly incontinence, all of which responded satisfactorily to the atropia treatment when administered in its full physiological effect. There are two of these cases which I wish to speak in reference to, as they illustrate the tolerance of the drug and the inexpediency of too sudden a withdrawal of the medicine after an apparent cure. In all my cases I used the metric granules manufactured in Philadelphia, commencing with the $\frac{1}{500}$ of a grain three times a day, increasing the dose very gradually for the first few days, and after that the increase was more rapid until there were some very decided symptoms of distress, and even then I would continue the dose cautiously, and the toxic symptoms would often disappear without decreasing the amount, and in only three of the cases did I have to gradually decrease the dose that was being administered. It is also necessary in the treatment for you to require the child to be brought under your observation every day, so as to judge as to the propriety of increasing, maintaining, or decreasing the medicine. I found that you can not intrust to the parent the dose that is to be administered, and it is not improbable the mental effect of visiting the doctor every day is beneficial.

In one of the cases, a boy nine years of age, that had wetted the bed from birth every night and seldom less than twice a night, the first dose administered was $\frac{1}{500}$ of a grain; it produced such nausea with vomiting and general redness of the surface that his parents were alarmed. I decreased the dose slightly for several days; the child that week soiled the bed three times. The dose was then gradually increased daily with the result that at the end of the second week there was a slightly improved record. The dose at the end of the third week had gotten to $\frac{1}{100}$ of a grain three times a day, with the result of additional improvement. The atropia was increased up to $\frac{1}{50}$ of a grain before the child was cured. Singularly to state, even at this dose, although the pupils were fully dilated, he never complained of his vision or any other

unpleasant symptom; nor did any of the children I treated, though they played out in the sunlight. I will state with regard to this case that I treated the mother for typhoid fever while she was pregnant with this child. At its birth it was fairly well nourished. It was born with a cleft palate, and the eyes as the child developed showed a want of co-ordination; its digestion for a bottle-fed child was good. He had to have two nurses, as one was unable to attend it on account of its sleeplessness. I rarely gave it an opiate. Bromide and paraldehyde were given with only partial relief. I then put the child on the hypophosphites, and it immediately acted like an opiate, and the child was a good baby from that on.

The second child was eight years of age. A robust, healthy-looking boy, he had been soiling the bed for five years. The child was relieved very promptly, and I withdrew the medicine abruptly and the incontinence returned in a few nights. I had to recommence the treatment, and then withdrew the medication gradually, and the cure was completed.

LOUISVILLE.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, April 20, 1894, Dr. T. L. McDermott, President, in the chair.

Dr. W. L. Rodman (Congenital Hydrocele): Dr. Simons, of Cloverport, Kentucky, sent me a patient, aged twenty-seven years, who had been the subject of hydrocele since boyhood; he had been tapped, and a half pint of fluid had been withdrawn from the cavity of the tunica vaginalis. An examination revealed hydrocele with accompanying hernia, probably of the omentum. I suggested operation, and being satisfied that it was a congenital hydrocele with accompanying hernia, I did not attempt any of the ordinary operations practiced for the relief of hydrocele. I concluded to carefully dissect out the entire sac. In cutting down upon it I found some fluid, and in addition a great quantity of omentum; this I recognized at once from the opacity of the tumor. I removed a piece of omentum three times the size of my hand, then dissected out the sac entirely up to the internal abdominal

* Stenographically reported by C. C. Mapes.

ring, and removed it. The case was operated on some weeks since; recovery was rapid, and the cure promises to be permanent. It is the second case of congenital hydrocele I have seen in an adult.

DISCUSSION.

Dr. E. R. Palmer asked for the speaker's experience with carbolic acid injections in the cure of hydrocele.

Dr. Rodman: It has been very favorable. A man on whom I operated six weeks ago for hydrocele by this means is now entirely cured, and there has been no return of the swelling. I have operated upon a great many patients by this method, and can say that the results have been all that I could wish. Cases operated upon seven or eight years ago have shown no return of the trouble. I believe I have never failed to cure a case of hydrocele with carbolic acid injections, though I have had to repeat the injection in two or three cases. I like it much better than iodine, because the reaction is not so great. If you happen to get a drop or two of the carbolic acid in the cellular tissue—which sometimes occurs in spite of the greatest care—you will not have the violent cellulitis that usually follows this occurrence where iodine is employed. I do not use carbolic acid in the quantity recommended by Levis, who popularized this treatment.

Dr. Palmer: I have had complete failure in a number of instances. I operated recently upon a man after the fourth tapping and second injection, the first one having failed. The fluid was entirely withdrawn, the testicle was normal in size, and the injection was made with very great care; the quantity of carbolic acid employed was thirty to thirty-five minims, which set up such a furious inflammation that the patient had to go to bed and have fomentations applied. The probabilities are now that this is going to be a cure, but I had about made up my mind this time I would quit using carbolic acid if it failed. I operated on one case, a middle-aged man, some time ago, by this method, and a second operation was afterward performed by Dr. H. Horace Grant. Both operations failed. The same thing will apply to several other cases where, after withdrawing all the fluid, a great deal of care was exercised in the introduction of the carbolic acid, but it produced severe inflammation and swelling, the hydrocele returning.

I have read all of Levis' articles on this subject, and my operations have been very thoroughly and carefully done, still my results have been such as to rather weaken my faith in carbolic acid. In the last

case above referred to the swelling was probably in the tunic rather than the testicle proper, but it looked as though he had an enormous orchitis. I know the testicle was not wounded, as it was not touched with the needle in making the puncture, and I am certain the carbolic acid was thrown into the sac.

I have almost reached the point of saying that I believe that all old chronic cases of hydrocèle should be operated upon by the open method.

Dr. Rodman: Dr. Palmer has brought up a very interesting point. Of course in operating upon hydrocele we have to select our cases with some care. In old chronic cases I rather incline to the opinion that something more radical than carbolic acid injection may be necessary; extirpation of the sac is probably the best plan. While I have operated successfully with carbolic acid, in some of these cases I am inclined to think that dissection would be the better method. I believe many failures, after the injection of carbolic acid, are due to the fact that the diagnosis is not always accurately made. If the diagnosis be correct, the vast majority of cases will be cured by the injection of carbolic acid.

Dr. Wm. Cheatham (Case of Microcephalus): A child, seventeen months old, was brought me from Mississippi for ophthalmoscopic examination. I found atrophy of the optic nerve; a partially developed eye; hypermetropia five or six dioptries; optic nerves blue. I made the diagnosis from the symptoms of microcephalus. The sutures were entirely closed and very firm. The child had never had any convulsions. It was perfectly blind; hearing very slight; reflexes defective; pupils somewhat dilated.

Dr. Rodman (Ligation of Subclavian Artery to arrest Hemorrhage; Early Establishment of Collateral Circulation): About four weeks ago I ligated the third part of the subclavian artery in a man at the City Hospital whose arm had been amputated at the shoulder-joint by Dr. Holloway two or three months before for malignant disease. The growth recurred very promptly. At the time I saw the patient he was bleeding constantly, so much that I ligated the third part of the subclavian before the class at the City Hospital a month ago. There was no bleeding at all, even from the granulating surface, for five or six days. After that time the hemorrhage returned, and is now as free as before the ligation. I was surprised that collateral circulation was established so rapidly. The first hemorrhage took place the sixth day after the

ligation, and now I am told that they have to keep a compress on the sarcomatous growth in order to control the hemorrhage. The arrest of hemorrhage was only temporary, one week.

DISCUSSION.

Dr. C. Skinner: As an explanation I would suggest that possibly the collateral circulation may have been established previous to the ligation or following the former operation.

Dr. Rodman: The ligation was done with over-prepared catgut, which we know remains in the tissues two or three weeks, and there can be no question about its having absolutely controlled hemorrhage for a week.

The essay was read by Dr. E. R. Palmer; subject, The Infecting Female. [See page 505.]

DISCUSSION.

Dr. J. W. Irwin: It is hardly fair to say that Dr. Palmer has discussed the subject in detail, but certainly he has read a very interesting paper. If the suggestions made by the author could be followed out it might furnish a clue to the many cases of pyosalpinx, etc., and in this way we might arrive at some definite conclusions in regard to the causation of this condition.

Dr. J. G. Cecil: I have recently seen some statistical papers upon the subject of the government control of prostitutes, and have been rather disappointed to find, as delineated in the essay, that it is not a success; that even in those countries where the women are under the most thorough control of the government gonorrhea and other venereal diseases are on the increase. The subject is large enough and of sufficient sanitary importance to demand more recognition at the hands of the government than it has received.

I believe that gonorrhea is doing more harm to-day to the people at large than cholera; it is doing just as much harm as smallpox ever did or ever can do. It ranks very high in the list of fatal diseases, and since it has been demonstrated by statistics and by observation that government control thus far has been a failure, I for one hardly know which way to look for improvement or for protection to the unprotected in this matter. This matter has received the attention of gynecologists, and most of them nowadays assert that a large proportion of pelvic diseases in the female are due to either gonorrhea or puerperal infection. Say that one half of the cases of pyosalpinx are due to gonorrhea, and

that brings before us a large class of very serious diseases to contend with, diseases which often end fatally, even when dealt with by the most skillful surgeons.

Government control thus far has proved a failure, but this does not relieve us of the necessity of looking in some direction, of agitating this question and bringing it prominently before the legislators of our country. I hope we soon shall evolve some plan which shall be of service, but certainly it will have to be in line with what has already been indicated in the paper. If it be under government control there will have to be a large amount of money appropriated, and it will have to be put in the hands of scientific men. It is true that, while the women are being inspected, no system of control for the "infecting female" will be complete unless that same system extends to the "infecting male."

Dr. H. A. Cottell: Gonorrhea is certainly a bacteriological puzzle. It is easy enough in a fresh case to demonstrate the gonococcus of Neisser, but when you come to the later manifestations, when you find a pus-tube (pyosalpinx) or some other remote secondary manifestation of the trouble, the gonococcus does not seem to appear. It is the common experience, I believe, to find in the pus of pyosalpinx some one of the staphylococci, and in those troubles that follow puerperal infection some of the streptococci appear. If we admit that gonorrhea is not a specific disease, or that any one having had gonorrhea within the period of four or five years by sexual intercourse may set up a transmissible inflammatory disease in the generative organs, we meet with great difficulty, because a very large number of women have a discharge of pus or muco-pus from the vagina nearly all the time (since the leucorrheal discharge consists of muco-pus and contains several pus-making micro-organisms), yet these women have intercourse with their husbands and do not infect them. Certainly gonorrhea is a pathological puzzle.

The control of venereal diseases, as Dr. Palmer has said, is clearly one of the great hygienic problems of the day. We may fight the disease as do those who treat gonorrhea and syphilis, but we are working very much like the machinery which propels our electric cars. We are at the wrong arm of the lever; we are expending an immense amount of force with very small returns. We all know how difficult it is to treat gonorrhea—how uncertain the result is. I suppose the experience of any man who treats venereal diseases will bear me out in the opinion that gonorrhea is a doubtfully curable disease. It is a common

thing to find men who have supposed they were cured of gonorrhea giving after ten or twelve years unquestionable evidence of chronic prostaticorrhea. I believe that when mankind wakes up to the necessity of getting rid of venereal diseases they will go. It is a hygienic possibility to get rid of tuberculosis, and the stamping out of the scourge might be accomplished in perhaps half a century. It is a hygienic possibility to get rid of venereal diseases, but their suppression certainly is a very difficult problem.

In reference to the statistics quoted by the essayist, if I am correctly informed, in the city of Berlin, while the regular prostitutes are carefully inspected, there are a great many legally recognized "street-walkers" who are never inspected, and who go about spreading the disease there as they do in places where there is no special police surveillance. Dr. Palmer has pretty thoroughly demonstrated the inadequacy of female inspection. The only sort of inspection that could be of any value is, as he suggests, inspection of the male.

Dr. A. M. Cartledge: I have always been greatly interested in the Contagious Disease Act formerly kept in force in the British Empire, and in tracing or keeping up with the work under this act, I became satisfied that there was not the necessary force behind it to insure success. For instance, an attempt was made to establish a bureau of inspection at every Naval Military Station. This move was put into operation and was practiced several years at the different British military posts. The amount of force necessary was so great that a demand was made for withdrawal of the legislation upon the subject, and I believe it is a matter of history that they finally agreed to do away with the Contagious Disease Act in England.

I believe in legislation in these matters, and if we only isolate ten cases of syphilis, for instance, and prevent infection of others, we limit the disease just that much.

Some of the points Dr. Palmer refers to concerning the pathology of gonorrhea, chancre, chancroid, etc., are exceedingly interesting, and, as Dr. Cottell has said, the pathology of gonorrhea so far as its microbic origin is concerned, is one of the puzzles that we have to encounter. Reasoning from conditions that exist in other infectious troubles, it seems to me that we have the strongest reason to presume at least that gonorrhea is a specific disease. We have heard the claim made that the character of the infection is determined by the anatomical structure involved. We may enter a man's urethra with a dirty catheter, dirty

sound, or in doing an operation upon the urethra we may infect it by introduction from without of some of the pus-forming organisms, and in this case the infection is totally different from the infection we are accustomed to call gonorrheal. Therefore it seems to me that it is fair to assume that the primary cause of gonorrhea is different from the ordinary pyogenic infection. I firmly believe that there is a specific organism of gonorrhea, although it may not yet have been isolated or differentiated.

Concerning the point made by Dr. Palmer of the danger of infection just after the menstrual flux, I would call attention to the fact that one explanation is, that gonorrheal pyosalpinx, as well as certain other forms, is very prone to empty itself through the patulous orifice of the tube at the uterus; the tube is of course much more patulous at the time of menstruation, and this may favor the emptying of the pyosalpinx. Many of these cases of old pus-tubes which are accompanied by specific endometritis, discharge into the uterus just previous to menstruation, thus allowing free drainage. This will explain many cases of pyosalpinx not referable to gonorrhea, although I believe the latter to be the most prolific cause. We can take a case of pyosalpinx and usually tell the source of the trouble, that is whether it is from infection by the streptococcus following abortion or puerperal fever, or whether it is from gonorrhea. I claim the physical appearance or the morphology of gonorrheal pyosalpinx is distinct from that the result of infection from abortion or septic infection from the uterus. I claim that there is the greatest difference in the changes that take place in the fallopian tubes as a result of gonorrheal infection, and as a result of inflammation due to the extension of septic trouble from the endometrium, especially cases following abortion or puerperal fever. I am convinced that the gonorrheal tube is far less dangerous than a tube after abortion or puerperal fever. The adhesions in the latter case are much more dense and extensive than in the former, making operation more difficult.

We are all familiar with the characteristics of gonorrhea in the male. While we may have swelling of the testicle, trouble with the vas, etc., when this takes place I believe it to be due to infection from other causes; while we know that it does lead to suppuration, it is oftener followed by a fibrous stricture.

Concerning Dr. Cottell's remarks, that we do not find the gonococcus of Neisser in long-standing cases of pyosalpinx, this may be

explained by a secondary infection whereby the gonococcus has been destroyed. This takes place in many so-called cold abscesses. The pus at first may contain certain organisms, and later none can be found.

Dr. Palmer remarks that chancroid occurs *de novo*, or that it is the result of filth, etc., and therefore non-specific. In chancroid we have a typical ulcer in conformation and every thing else, and I can not believe it is due to filth. It must be the result of entrance of some one of the pyogenic organisms, as it certainly presents specific characteristics. It presents a clean-cut ulcer, almost malignant, which refuses to heal, very much unlike a sore caused by filth.

Dr. T. S. Bullock: I believe it has been demonstrated beyond question that governmental control or inspection to prevent the spread of venereal diseases is a failure. I think, however, that inspection would limit the spread of syphilis if it were done by a competent man, but, as Dr. Palmer has shown in his paper, and as alluded to by the other speakers, on account of the washing out of the vagina, the source of infection being in the cavity of the uterus is hidden from the eye of the observer, the pronouncing of a woman free from gonorrheal infection is an extremely difficult if not an impossible thing to do. If the prospect were as good for limiting the damage done by gonorrheal infection as we have for limiting the ravages of puerperal infection, the outlook would be brighter.

As Dr. Palmer has outlined in his paper, gonorrhea is looked upon both in the male and female as being of too little importance. Doctors will have to educate the laity in this matter, showing them how extremely dangerous the infection from gonorrhea is. The female is beginning to realize this fact to a much greater extent than the male. There is no doubt about both syphilis and gonorrhea being preventable diseases, and when the importance of prevention has been fully realized, and careful inspection of both male and female instituted, I believe that they can be very materially limited.

Dr. T. L. McDermott: We all recognize the inefficiency of governmental inspection in matters of this kind, and I do not believe it ought to be done. In my opinion the greatest protection we have is in the knowledge that such diseases exist. It is a good thing for the people that they are not protected more than they are. If a young man knew that it was perfectly safe for him to visit houses of prostitution for immoral purposes, the moral aspect of the matter would be ten thousand times worse than it is at present. One of the greatest reasons that

governmental inspection has been inefficient is simply because it has been under the control of politics; that these offices were bestowed upon men for political reasons only, and, as a consequence, they were usurped by men in the profession who, if not in league with the women themselves, with the knowledge of the evil submitted to its tolerance. The greatest protection, I say, is in the houses themselves; I believe the least amount of infection comes from these resorts, it comes largely from those outside the houses of prostitution, and any means instituted for the inspection of the regular houses of course would have no effect upon the latter class.

I recognized early in my professional career the difficulty of diagnosing gonorrhea in the female. I have seen several cases where to all appearance the women were in a perfect state of health, where an examination of the vagina showed no evidence of disease, yet gonorrheal infection could be traced directly to them.

In regard to syphilis, I agree with what Dr. Palmer has said, that it is sometimes as difficult to deal with in the way of prevention as gonorrhea. One of the most promising means of destroying these evils is to educate the female, if it were possible to do it, as to the possibility of disease existing in the male. It is very easy to recognize a man with a case of acute clap by a visual inspection; if he has a chancre it could be easily detected. Therefore I say that the most rational thing to do in the way of prevention would be to educate these public women up to making a critical examination of the male before sexual intercourse.

Dr. Palmer: First, with reference to the question concerning the relationship of the gonococcus to gonorrhea. Dr. Cottell has answered it perfectly when he calls it a puzzle. I would say, in differing with Dr. Cartledge, as to some new micro-organism yet to be discovered, the probabilities are that it is a relationship between the various bacilli already known that is concerned in the cause. From dirty instruments, surgical operations, or injuries to the urethra, we may have the ordinary pus infection, then we may have the gonococcus or other micro-organism engrafted upon this, resulting in what is called a mixed infection. It can not be demonstrated that the gonococcus is alone the germ of the disease, yet you can produce gonorrhea by inoculation of the gonococcus. The trouble is that you can rarely find a man that will submit to the inoculation with the gonococcus that you can be certain was not previously the victim of chronic gonorrhea, or can be certain that

he, between the time of the inoculation and the development of the disease, has not had other exposure. In other words, we can not be certain that our experiment is a reliable one. My idea is that it could be done by supplying it in some of our feeble-minded institutions. I doubt, however, if such a plan could be carried out in this country.

As to State legislation, this has been tried again and again, and again and again has proved a failure, and not infrequently abandoned.

Inspect the male. I believe this is the only plan that will prove successful; not that this can ever stamp out the disease, but I believe that by such a procedure it can be greatly diminished. This could be done by an officer or physician, or even by the women themselves. An investigation of the subject some years ago in New York developed the fact that this latter mode of inspection is receiving some attention there. There are a number of houses where no man is allowed by the women to undress except in the most brilliant light, and she herself makes the inspection with reference to the existence of gonorrhea, or chancre, or chancroidal ulcer. If any trouble of this kind exists it can in the majority of instances be detected by the woman, who may then refuse to submit to sexual congress. If an investigation of this kind could be instituted in all the higher class houses much good would result in limiting the spread of infection. I believe that one reason why venereal diseases are so common is that not enough attention is given the subject by the women themselves; they are careless or indifferent as regards a careful examination of the male with whom they are to have intercourse. It is not very uncommon for my male patients, a glance at whose organ would show disease, to tell me that they had had sexual congress the night before with a prostitute.

Gonorrhea is almost an incurable disease in the female. Many genito-urinary men believe that women never have gonorrhea in the vagina at all. The vagina has an acid secretion which we know is inimical to the active principle of gonorrhea, and it is a fact that the vagina is rarely affected primarily, but that it sometimes becomes so secondarily I believe. In some of the most persistent cases of gonorrhea the vagina from the ostium clear up to Douglas' *cul-de-sac* is entirely exempt from the disease. As a matter of course an ocular inspection of such a vagina would result negatively in most cases, as the sexual organs of the subject would be regarded as in an absolutely healthy condition, yet just such cases are often fraught with infective danger.

A man came to my office recently with the statement that he was "playing out" at the age of thirty-eight years. He was to all appearances a robust, healthy-looking fellow. There was a history of an attack of gonorrhea of six or eight weeks duration five years ago. Recognizing that a decline in the sexual powers at this age is unusual, I made a very careful examination of the case and discovered that he still had a chronic posterior gonorrhea. After a week's treatment this chronic condition was relieved, and the man recovered all his former sexual power. If it is possible for this chronic condition to exist for such a length of time in the male, and escape detection, how easy it might be to overlook infection in the female with her uterus, tubes, glands, pockets, etc., all susceptible to the contagion.

In reference to chancroids. I have never seen more typical chancroids in my life than those which began as so-called herpes. Syphilographers of the present day are almost a unit in the opinion, and it is of daily occurrence, that chancroids do originate *de novo*, in so far as *de novo* means without sexual connection. A man may have a chancroid who has never been infected; he may have a chancroid if he has never had sexual connection. This has been demonstrated time and again, and there are abundant authorities to bear out this statement.

H. A. COTTELL, M. D., *Secretary.*

THE LOUISVILLE CLINICAL SOCIETY.*

Stated Meeting, April 10, Dr. George W. Griffiths, President, in the chair.

Dr. William Cheatham (Polypus of Luschka's Tonsil): This specimen had its origin in what is known as Luschka's tonsil, left side. McKenzie refers to only two cases of pedunculated growths of the pharynx. A polyp springing from that location therefore is very rare. It had undergone cystic degeneration; of course it collapsed as soon as punctured, and is now only about one third the size it presented when removed. This patient came from the country and gave the history of a peculiar sensation in the throat; that whenever she attempted to swallow it felt as if she "was swallowing her own head." The operation was thus done: A weak solution of cocaine was sprayed into the left nostril for anesthesia and to shrink the turbinated tissue to enable me to pass a soft catheter through the nostril and out of the mouth, to tie the soft palate forward; to the end of the catheter I tied a strong

*Stenographically reported by C. C. Mapes.

silk thread, passing it through the nose and out of the mouth; after getting it through the nose and mouth, I cut the thread from the end of the catheter and tied the catheter firmly over the upper lip. I then took a Douglas snare with wire in canula, and attached the end of the string which was in the nose to the loop of wire and pulled the wire and canula through the nose, and the loop into the post-nasal space and pharynx. With a volsellum the polyp was drawn through the loop; the polyp, having undergone cystic degeneration, ruptured; in endeavoring to tighten the wire around the growth the latter came loose. When such a growth has undergone fibroid degeneration, thus making the operation more difficult and increasing the danger of hemorrhage, it is of much consequence, especially when the cold wire is used, to cut slowly, to rest the patient often, and thus to avoid hemorrhage. After the growth was removed I located its origin. The stump was cauterized with chromic acid.

The essay was read by Dr. T. P. Satterwhite; subject, Incontinence of Urine in Children. [See page 511.]

DISCUSSION.

Dr. J. M. Krim: I have a case under observation now that has been suffering with chorea and incontinence of urine for some time. The patient is a little boy ten years of age. In an examination I found he had phimosis. As soon as he was relieved of the phimosis I expected the incontinence of urine and chorea would cease, but they failed to do so. I put him on atropia, starting with $\frac{1}{100}$ grain. After three weeks' treatment the incontinence and chorea disappeared. Phimosis is frequently a factor in the production of chorea, and usually ceases when the phimosis has been relieved, but in this case the chorea continued for three weeks after the condition of phimosis had been relieved.

Dr. J. W. Irwin: The causes of nocturnal incontinence of urine have been enumerated, but my experience goes a little beyond the local cause of this trouble. I have found most children who wet the bed usually of tubercular or scrofulous diathesis, or they have a nervous predisposition. They have some history showing a departure from the standard of health as a rule. It is a rare thing to find a child who is robust and healthy in every respect wetting the bed persistently, but now and then a child will do so even when apparently in perfect health. When children overload the stomach, take excessive exercise, and

become so tired that the call of nature is not sufficient to awaken them, they wet the bed. Many cases can be accounted for in this way in healthy children, who require no treatment beyond correcting the errors in diet or exercise.

The essayist laid great stress upon the use of atropia in treating this trouble. I believe that atropia as a single remedy is perhaps the best of all, but it is by no means a panacea. Instead of finding the urine acid in reaction, as stated by the essayist, I have frequently found it alkaline. I have often encountered children suffering from nocturnal incontinence of urine with cold extremities, cold skin, feeble circulation, and a sluggish atonic condition of the whole body. In such cases I have found great relief to often follow the use of a solution of phosphorus, dilute phosphoric acid, three times per day as a constitutional remedy. In others I have found the tincture chloride of iron to be most serviceable, and it often gave permanent relief. I usually administer a dose of atropia at night and direct that as small a quantity of water be taken at bed hour as possible. I think phosphorus is a valuable remedy in many of the cases—the essayist also touched upon the use of this remedy—very frequently it has the effect of producing a complete cure. Quinine is also useful, especially tannated quinine. I believe this form of quinine to be the next best remedy to atropia, but it should be long continued and given in modern doses. For a child two years of age two grains of tannated quinine three times a day would not be too much, and it should be continued at least for thirty days. When a child is six, eight, or ten years of age and still wets the bed, I have found an excellent remedy in the faradic current, applied one pole (positive) to the nape of the neck, the other (negative) to the perineum. An application of this agent twice or thrice weekly does much good, and is often more effectual than atropia. I believe we often give too little atropia in treating children for incontinence of urine; to a child two years of age I have given $\frac{1}{80}$ grain at night without any bad results. This is a larger dose than is usually given to the adult.

Dr. P. F. Barbour: The subject under discussion is especially interesting to me, as I have seen a great deal of incontinence of urine in my clinical experience, and in private practice also. Like the gentlemen who have already spoken, I think atropina is probably the best remedy in these cases. The first thing to do in the case is to ascertain the cause of the incontinence, and this very frequently is the most difficult part of the treatment. Dr. Satterwhite has mentioned most of the

causes that are believed to be factors in producing incontinence. In my experience phimosis has been the cause of more cases of incontinence of urine than any other one condition. I have found in some cases, where there was only partial phimosis, the inability to retract the prepuce completely set up a sufficient nervous irritation to produce this trouble at night. In fact I have had one or two cases where I failed to produce a perfect retraction of the prepuce and atropina had no effect; after I had secured perfect retraction, the child rapidly improved under the atropina. Of course, cystitis, irritation about the bowels, rectum, or in fact any part of the gastro-intestinal canal, or a reflex from any point in the whole system, is liable to produce incontinence of urine. The doses of atropina recommended by the essayist are not too large by any means. Children can bear two or three times as much of this drug in proportion to their age as the adult, and I have usually given very large doses even at the beginning of the treatment. I have prescribed, for instance, in solution, one grain of atropina to an ounce of water, giving at a dose as many drops as the child is years old, though I rarely exceed five drops as an initial dose. Cantharides is indicated in some of these cases, where there is atony of the sphincter muscles of the neck of the bladder. When it is not due to lack of nervous control but to atony of the muscles, as Dr. Irwin has said, the faradic current is an excellent treatment. The action of belladonna I have not found so reliable as atropina.

Dr. P. Guntermann: I agree with Dr. Satterwhite as to the necessity of looking into the condition of the general health, and that this must be brought up to the normal standard before atropia or any other remedy directed to the relief of enuresis can be of any benefit. I do not agree with Dr. Irwin that the majority of children who suffer from incontinence of urine are either of strumous diathesis, nervous temperament, or of scrofulous habit. I have treated quite a number of children for this trouble, and the patients I have had, particularly the last five treated during the past year, were of very healthy parentage, were themselves apparently very healthy children, with perhaps one exception, and certainly had no strumous or scrofulous taint. These five cases made a very prompt recovery under the atropia treatment. My mode of treatment was the same as that of the originator of the method, viz., I gave one drop, for every year of the patient's age, of the solution of one grain of atropia to an ounce of distilled water, which in the oldest child made $\frac{1}{50}$ grain, and in the youngest $\frac{1}{24}$ grain, to begin

with. This was continued twice per day, in the afternoon at four o'clock, and at ten o'clock at night. This treatment was kept up as a rule about six weeks. One case, a boy seven years old, was relieved in four weeks; then the mother thought, as the boy could not see very well and had some general constitutional disturbance, that the medicine had been continued long enough and quit. In about two weeks the treatment was again instituted and continued another four weeks, when the boy was entirely cured. I had another little patient four years old, rather weak and delicate; he wet the bed at night, in fact was always wet. I gave him constitutional treatment consisting of tincture of iron and corrected his urine; I gave him canthardine, $\frac{1}{50}$ grain, three times a day, and before I knew it he had as bad a case of cystitis as I ever saw. It seemed as if he passed the whole of the mucous membrane of the bladder within twenty-four hours. The little fellow recovered from that, but the incontinence was not relieved until I put him on atropia, starting with four drops ($\frac{1}{100}$ grain) twice per day. He made a very steady improvement, kept on improving, and finally became entirely well, and is well now.

Dr. Satterwhite: I think it is necessary to give atropia oftener than Dr. Guntermann states; it is eliminated very rapidly, and twice per day is not sufficient. In all my cases I gave it three times a day, and kept up the remedy at least a week or ten days after apparent cure. I did not withdraw it at once, but decreased the dose gradually.

Dr. Guntermann (Accident from the Use of Bromoform in Pertussis): I simply wish to speak of a peculiar accident I had last Friday evening. I had prescribed for three children in the same family; one aged eighteen months, one aged three years, and one not quite five years, a mixture of bromoform, two drams to four ounces of syrup of tolu, to be given 60 drops to the oldest, 30 drops to the second, and 10 drops to the youngest child. All were suffering from pertussis. They took the medicine, and I was to be advised how it acted when the supply was exhausted, or sooner if it did not act at all. I learned how it acted when the last dose was given. I was called at seven o'clock in the evening to come at once, as one of the children was dying. When I reached the house I found that the child was perfectly dead drunk. I thought at first that the child had had a spasm and was simply limp from its effects; there was nothing to indicate any serious danger, and the child had gone to sleep. I told the family to let the child sleep,

and if they saw any thing out of the way to let me know. A half hour later I was called again, and found the second child unconscious and perfectly limber, having no control of the muscles whatever. In another half hour the oldest child was taken in the same way. The pulse of each was good, they were quiet, breathing was natural, pupils looked all right, so I inquired whether they had any thing about the house that might have been taken by mistake. Investigation revealed that the only medicine they had taken was the bromoform and syrup of tolu which I had prescribed, which I knew could do them no harm. I found they had taken the last of the medicine that evening; and the mother said: "Doctor, there is something peculiar about that medicine; when you do not shake it there is always a lot of oil in the bottom." I knew then what the trouble was; they had not shaken the medicine, and had taken pure bromoform, the last dose left in the bottle.

Dr. W. H. Wathen (*Atresia Vaginæ*): Four weeks ago I operated upon a married lady from Louisiana, for atresia vaginæ of the upper half, the lower half being normal. By an examination through the rectum and bladder it was impossible to decide positively whether there was congenital absence of the upper part of the vagina, or whether there was simply atresia resulting from inflammation, with atrophy and thinning of the walls. The uterus was normal in size, and the ovaries and tubes apparently normal. She was perfectly developed in other respects, a bright, intelligent, and accomplished woman. Her menstrual periods had been regular, though very painful and prolonged. I found fistulous opening through which I could introduce only the smallest probe, entering the vagina on the left side, and through this the menstrual discharge came away. A small uterine dilator was forced into this opening, and the blades spread making an opening large enough to introduce my finger. With the handle of a scalpel the united surfaces at the upper part of the vagina were divided, and then with my finger I began dissecting above, and discovered that I was not separating an adherent vagina, but was separating through connective tissue uniting the bladder with the rectum, showing that there was congenital absence of the upper half of the vagina. I finally reached the uterus, and continued dissecting through the connective tissue until I had opened into Douglas' pouch. This allowed the uterus to come lower in the pelvis between the rectum and bladder, and bring the os uteri near the vaginal tissue proper. There was but little hemorrhage, and the cavity was tam-

poned gently with iodoform gauze. She had no untoward symptom, no elevation of temperature nor acceleration of pulse; she suffered no pain; absolutely in a normal condition; the dressings were changed every two days; the peritoneal wound healed completely, and the mouth of the uterus was down nearly to the vagina. She menstruated while at the infirmary and had no pain; the flow lasted about half as long as had been customary before the operation. She left the infirmary two weeks after the operation with the cervix firmly fixed, the os large enough to allow the introduction of end of my finger, and she was in every way feeling perfectly well. Had I not opened the peritoneal cavity the uterus would probably not have come down lower than it was, and the separated space between the bladder and rectum would have retracted until possibly there would have finally been but a small fistulous opening, and the woman would have suffered with painful menstruation as in the past. But by separating into the peritoneal cavity, allowing the uterus to come down, it will do away permanently with any trouble in menstruation. But there is a question about which I have serious doubts in this case, viz., the ability of this woman to give birth to a child through the vagina, because the uterus is not attached to the vagina; it is attached only in front to the bladder, behind to the rectum, and at the sides to the connective tissue of the pelvis and the broad ligaments. I believe that, were she to go into labor at term, there would be danger of serious injury; the uterus when contracting and pressing the child outward would, because of feeble vaginal attachments, cause the cervix to become torn from the pelvic structures and allow the child to pass into the peritoneal cavity necessitating an abdominal section. With this belief I advised against her becoming pregnant, and told her husband the dangers such a condition might entail.

I have had two cases of total congenital absence of the vagina; one in a lady living in the southern part of the State, who is otherwise perfectly developed, breasts, vulva, etc., and having all the feelings of a perfect woman in relation to the opposite sex; neither vagina nor uterus could be detected, although it is claimed by some authorities that there is always some of the uterus present in these cases, but it is very small. Her ovaries and tubes could be distinctly outlined.

The other case is a little girl of a prominent family in this city, where there is entire congenital absence of the vagina with presence of the ovaries and a very diminutive uterus. As the child is but four years of age, and as the uterus is at this age very small, when she

develops into womanhood it may develop sufficiently for menstruation which will have no outlet.

I report these cases because they are not of usual occurrence; many busy physicians may practice for many years and not see such a case. I have seen but these three cases. It is not a very uncommon thing to see acquired atresia of the vagina resulting from specific infection, from infection following childbirth, from infection of measles, smallpox, or even diphtheria; and one reason why I thought the last case upon whom I operated was acquired adherent vagina was because her husband told me that when she was eight years old she suffered with a severe attack of diphtheria, and had some vaginal discharge. The vagina, uterus, and tubes are developed from the ducts of Müller, from above downward. We may have absence of the upper, middle, or lower part of the vagina, but we very seldom have absence of the middle of the vagina with the upper and lower parts existing, and as a rule we have neither entire absence of the vagina, or only the upper or lower part. The vagina may be absent and the uterus fully developed; or the vagina may be absent and the uterus apparently absent. With entire absence of the vagina, with the presence of the uterus and ovaries well developed, the better treatment would be to remove both the uterus and the ovaries, as they could be of no use to the woman and might cause her a great deal of pain and suffering, or even death. If you were to attempt to establish a vagina in a case of this kind, you would have great difficulty in reaching the uterus and opening the parts well without danger of injuring the rectum and bladder, especially so if the union of these two organs happened to be such as to require any instrument except the fingers in separating them. When an opening is made, contraction will gradually take place until you will have practically nothing better than a fistulous opening. In acquired atresia of course we may by operation in many instances re-establish the vagina.

Dr. Irwin (Guaiacol in Appendicitis): On March 24th I was called to see a girl fifteen years of age, and found her suffering from appendicitis. Her temperature was 104.5° F. She was complaining of rigors, etc., and had been all the day before; she could not be gotten warm; extremities cold, but her axillary temperature was 104.5° , and she was suffering with severe pain in the right iliac fossa, on a line with the anterior superior spinous process of the ilium, about four inches toward the median line. There was one spot of tenderness at the point I have

indicated, and I diagnosticated appendicitis. The next day there was a well-defined tumor about three inches in length and one and a quarter inches in diameter, extending upward and outward in the region indicated. The patient had received the day before I saw her (she had been sick twenty-four hours when I was called) two grains of calomel administered by the mother, and that had been followed a few hours later by a dose of castor oil. Very free purging followed the use of the castor oil, much more than the mother had anticipated. The evacuations were watery and very offensive, and contained nothing but fecal matter which had a peculiar odor, very much like that of the evacuations in the latter stages of summer diarrhea in children. The limbs could be straightened and she could lie flat on the bed without causing any increase of pain. Turning in bed increased the suffering, to the left very materially, to the right it eased the pain. I felt certain that the trouble was appendicitis on my first visit. I administered paregoric and saw her again six hours later. Temperature was still high in the axilla, and the nurse could not get her warm.

I had used guaiacol in typhoid fever, in three cases, applied over the iliac region, and thought I would make use of it in this case to see what effect it would have on the inflammatory process. I directed that fifteen drops of guaiacol should be painted over the seat of the disease, applying it over an area about the size of the palm; cotton was applied over this and held in place with a binder. An hour or so later the temperature had fallen one degree. Whether it was from the effect of the guaiacol or a normal defervescence I was unable to determine. During the night her temperature ranged about 103° , and in the morning it was 104° F. I then applied twenty drops of guaiacol over the same area, without previous washing, and dressings as before. Two hours later the temperature had fallen to 99° F. and the patient was asleep. Her mother remarked to me then: "Doctor, can't I use that application oftener; soon after it was applied it relieved the pain and she fell asleep." Of course this relief may have been due to the paregoric and not to guaiacol. Anyway, as the temperature was reduced the patient became very much more comfortable. The application of twenty drops of guaiacol in the morning at nine o'clock controlled the temperature until seven in the evening, when it rose to 103.5° F. Another application of guaiacol kept her comfortable through the entire night and following morning until twelve o'clock. Meantime her temperature ranged between 99° and 103° . Two applications of guaiacol a day controlled

the temperature, made her comfortable, and relieved the pain. A dram dose of paregoric was given at night to enable her to rest, as she was somewhat nervous. There was no sweating under the use of guaiacol, or after the reduction of the temperature; the skin remained dry. This is the seventeenth day of her illness, and there has been no elevation of temperature since the thirteenth day. The tumor has decreased in size; the tenderness has diminished under the local applications of guaiacol. Paregoric, an occasional enema, and some salicylate of quinine were the internal remedies. This with rest and a very strict liquid diet was the treatment. I think the patient will now get well without the formation of an abscess.

I saw another case this morning in a gentleman seventy years of age. The attack is not very severe; he has been sick three days. Indications at first pointed to disease in the right iliac region, and there was considerable distension of the colon, but no tumor could be discovered. There was some little doubt as to the nature of the trouble, and he was thoroughly purged with castor oil in the beginning of the attack. His temperature was 101° F. at night and from 99.5° to 100° F. in the morning. Pain not very severe. This morning I saw the case for the first time; there was a large sausage-like tumor in the right iliac fossa extending from the anterior superior spinous process of the ilium down in the direction of Poupart's ligament; tender under pressure. The colon was distended with gas, but there was no tenderness in the region of the cecum which we sometimes find in appendicitis. This case was diagnosticated appendicitis, and, as the gentleman is quite old with a feeble constitution, the probabilities are that an abscess will form and the surgeon will be called in and the usual operation and autopsy will follow.

We did not apply guaiacol in this case because the temperature was not high enough to demand it, but gave him codea, one half grain, to relieve pain and cause sleep. What the outcome of the case will be, of course I do not know, nor do I know that surgical interference will be necessary. We will try to bring about a cure without resorting to surgical measures.

I have looked up the history of appendicitis recently with especial reference to the mortality in cases operated upon and those treated by the medical plan alone, and so far the result in the treatment of appendicitis medicinally is much more successful than where the operation has been resorted to. However, in many cases it is probable that sur-

gery has not had a fair test. I have no doubt if many cases had been operated upon earlier they would have gotten well. In the extreme stage of the disease, after general peritonitis has supervened, recovery is not so likely to follow, therefore the surgeon hardly has had what may be called a fair chance. The mortality after operations in appendicitis, as far as I have been able to collect, is about 45 per cent, while the average mortality after medical treatment is 20 to 27 per cent. The difference, however, may be due to the fact that the surgeon usually receives none but the worst cases to operate upon. In the last twenty years I have treated at least forty cases of appendicitis; two cases a year would be a very conservative estimate. I have not had a death to occur from this cause. I have had to open abscesses, and I have had abscesses to burst in various directions, and some of my patients are permanently crippled. While after the operation results have not been all we would like to see, yet when considered from every point of view the operation must be regarded as the most rational method of treating appendicitis. The physician stands over these cases in great suspense, as he does not know at what minute perforation may take place, and infiltration of the peritoneal cavity may cause general peritonitis and death. If this does not occur, he has to look forward to a recurrence of the disease, especially in the young. I am of the opinion that the time is not far distant when we will be able to reach such a point that the disease will be recognized early, the operation consented to at once, and prompt relief and cure will be obtained.

While I have not the statistics of appendicitis clearly in my mind, I believe males are much more subject to the disease than females, in the proportion of 100 to 16. The ages at which it is most likely to occur are between twelve and thirty-five. It may occur in earlier life, and on the other hand it sometimes attacks older people, as in the case I have just reported. So, when I look at these cases in their different aspects, while I am inclined to be conservative, and my experience leads me to make this statement, not simply looking at cases from the standpoint of saving life alone, yet I am in favor of early operative procedures, as I believe surgery will give better results than any other method of treatment. While the patient may get well without the operation, we can not say that the disease will not occur again, and knowing this, while he is strong and no damage has been done to the adjacent parts, the operation can hardly be any more fatal than exploratory incisions.

T. C. EVANS, M. D., *Secretary*

Reviews and Bibliography.

An International System of Electro-Therapeutics, for Students, General Practitioners, and Specialists. By HORATIO R. BIGELOW, M. D., and thirty-eight Associate Editors. Thoroughly illustrated. In one large royal octavo volume. 1160 pp. Extra cloth, \$6 net; sheep, \$7 net; half Russia, \$7.50 net. Philadelphia: The F. A. Davis Co., Publishers. 1894.

To every one who has felt from time to time the discouragement that must come in the practice of medicine, it must be a pleasure to peruse a volume like this, opening up a field of therapeutics as wide almost as disease itself, and as full of promises as hope could well ask. The pleasure, however, is marred when we reflect that there are more than thirty-eight engaged in treating the same diseases who are just as positive that the greater part of these are deluded, and that, outside of its physical action, electricity accomplishes little more than other means of suggestion.

There are some matters, however, in which such an explanation can not be involved, such, for instance, as the treatment of strictures of the urethra and bowel by electricity. There is here either error of observation or false statement on the part of the operators, or there is such an obtuseness or willful obstinacy on the part of opponents as is inexcusable.

How one man for twenty years shall succeed in causing the disappearance of strictures, and the great mass of others fail utterly, it is hard to understand. It would seem competent to decide such matters by electrolyzing scars that are exposed to the observation of all. If electricity will not remove a scar from the face, how are we to believe it will remove one from the urethra?

But howsoever all this may be, we have here a very full and oftentimes very interesting treatise on electrical therapeutics. Especially interesting to even the general reader are the chapters on animal electricity by Mills, and electro-physiology by Brubaker.

D. T. S.

A Text-Book of the Theory and Practice of Medicine. By American Teachers. Edited by WILLIAM PEPPER, M. D., LL.D., Provost Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania. In two volumes. Illustrated. Vol. II. 1046 pp. Price, cloth, \$5; sheep, \$6; half Russia, \$7. Philadelphia: W. B. Saunders. 1894.

In many of the composite productions that reach the medical public, a large number of contributors are chosen seemingly for the patronage that may be gained among the students of the writers, who are nearly always teachers. If fortunately the editor is a man of judgment, experience, and ability, the work is well molded into shape and reduced to a consistent whole. In such case the less of the individual opinion of the many contributors the better, for good writers are not to be gathered in with a drag-net, or forced in hurriedly from the streets and by-ways.

Happily this criticism does not apply to this American Text-Book of the Theory and Practice of Medicine. Any one of the contributors might have written of himself an excellent treatise on medicine, and some of them have written such works. Still it is not to be expected that in a work of two volumes any thing like all that is known of medicine should be given. Diagnosis receives the first attention, treatment is fairly full, with pathology somewhat subordinated, all of which, perhaps, with the large majority of students meet the indications for a text-book. As a sample of book-making it maintains the excellent standard that would hardly be benefited by the addition of the name of Dr. Pepper, eminent as that name is. But with the collaboration of such men as Lyman Pepper Wilson, Delafield and Reginald, H. Fitz and William Osler, nothing less could be expected than one of the soundest and ablest treatises in what appears to be the ambition of the enterprising publishers.

D. T. S.

The Year-Book of Treatment for 1894. A Critical Review for Practitioners of Medicine and Surgery. 492 pp. Philadelphia: Lea Brothers & Co.

To the Year-Book of Treatment of the current year two new articles have been added to the usual list. These articles relate to the medical diseases of children and bacteriology.

The collaborators embrace more than a score of eminent medical men in Great Britain, many of them of the very first standing.

The record made during the year 1893 is not remarkable for distinct advances, though many drugs foremost in the fray in former years have been permitted to lapse into some kind of "desuetude." The most remarkable report in the volume is that relating to the use of the animal extracts. If these are to be believed, all the "mistakes of Moses" dwindle into nothing when compared to the grand mistake of the human race in quitting raw food and taking to cooking.

Surely if congenital ichthyosis, locomotor ataxia, and operative paralysis can be cured by animal extracts, we have only to pick the bones and scoop the marrow of our food animals and devour them without cooking in order to drive disease from the habitations of men.

In the reports on surgery the reaction against corrosive sublimate is emphasized as an antiseptic in surgery. In this department the conservatism of the British spirit is throughout manifested. Indeed nearly all the remarkable advances, which substitute advances of last year, and will give way to other advances next year, are foreign as to Great Britain.

D. T. S.

Gonorrhea, Being the Translation of *Blennorrhœa of the Sexual Organs and its Complications*. By Dr. ERNEST FINZER, Docent at the University of Vienna. Third revised and enlarged edition, with seven full-page plates in colors and thirty-six wood engravings in the text. 324 pp. New York: William Wood & Co. 1894.

This work exhibits much research and experience, and is pitched on a classical plane, but, except in the matter of culling out methods of treatment that have been found useless, it does not show a distinct advance on

teachings already in vogue. The author dwells on the now well-known fact that the gonococci can not be effectually destroyed by any injection that it is allowable to make, and condemns as dangerous as well as useless efforts at the abortive treatment of the disease. Unlike Milton, he does not condemn as totally futile the internal use of balsams, but on the contrary deems them highly efficacious. Putting the author's teachings in a comparison with other leading writers on the same subject, rejecting every thing that is opposed by able teachers and accepting only that on which all agree, one could feel that he had done his duty if he should have removed by the gentlest means, and as frequently as possible, the discharge from the urethra so that it could not decompose and become noxious, and by rest and bathing had removed as well as possible provocatives to inflammation.

The teachings in regard to all complications, as well as to the acute disease, are eminently conservative, but at the same time by their clearness and positiveness display the leader.

D. T. S.

Practical Lectures in Dermatology, Comprising a Course of Fifteen Lectures Delivered at the University of Vermont, Medical Department, during the Session of 1892 and 1893. By CONDUCT W. CUTLER, M. S., M. D., Professor Dermatology University of Vermont. 223 pp. New York and London: G. P. Putnam's Sons. 1894.

This work is from the author's lectures on diseases of the skin in the University of Vermont, and affords a clear presentation of the subject as taught by the best authors. It affords a very satisfactory conspectus of skin diseases and their treatment.

D. T. S.

Essentials of Nervous Diseases and Insanity: Their Symptoms and Treatment. A Manual for Students and Practitioners. By JOHN C. SHAW, M. D., Clinical Professor of Diseases of the Mind and Nervous System, Long Island College Hospital Medical School. 190 pp. Price, \$1. Philadelphia: W. B. Saunders. 1894.

This excellent manual was spoken of in a review of the first edition in the high terms it deserves. It has, however, been improved in this second edition as still more to deserve the favor with which it has been regarded.

A PRACTICAL TREATISE ON THE DISEASES OF THE HAIR AND SCALP. By George Thomas Jackson, M. D., Professor of Dermatology, Woman's Medical College, New York Infirmary; Chief of Clinic and Instructor in Dermatology, College of Physicians and Surgeons, etc. New, revised, and enlarged edition. Price, \$2.75. New York: E. B. Treat, 5 Cooper Union. 1894.

EYE STRAIN A CAUSE OF HEADACHE. By David Webster, M. D., Professor of Ophthalmology in the New York Polyclinic, etc. Illustrated. Third edition. Price, \$2.75. New York: E. B. Treat, 5 Cooper Union. 1894.

TREATMENT OF THE DISEASES OF THE STOMACH AND INTESTINES. By Dr. Albert Mathieu, Physician to the Paris Hospitals. New York: William Wood & Co. 1894.

Abstracts and Selections.

OXALURIA.—Boursier (*Ann. de la Soc. d'Hydr. Méd. de Paris*, 1894,) gives notes of 66 cases treated at Contrexéville. Oxalate of lime is probably intimately allied to uric acid, and out of 450 patients suffering from gout or uric acid gravel Boursier found crystals of oxalate of lime in the urine of 150; Debout d'Estrées found it slightly less frequently. The high specific gravity usual in the urine of oxaluria is probably due to the presence of oxalates, and when these are replaced by uric acid the specific gravity of the urine usually falls. The renal pains in oxaluria vary much in intensity and situation; they may be accompanied by nausea, and take on the appearance of true nephritic colic, with or without the expulsion of oxalic gravel, but the intensity of the pain is in no relation to the size of the oxalic fragments. Hematuria was observed in more than a third of the sixty-six cases; it is usually very slight, and results, not from the presence of oxalic gravel, but from congestion of the kidneys due to the irritation by the oxalates. In one case hemoglobinuria, like paroxysmal hemoglobinuria, was observed. In oxaluria the bladder may be irritable, and the frequency of micturition, accompanied by intermittence in the stream and a sensation of burning in the urethra, may give rise to a suspicion of vesical calculus. Oxaluria, may be, so to speak, physiological, that is, due to a diet with vegetables rich in oxalate of lime, or it may be pathological. In the latter case it forms part of a "syndroma" of symptoms, the chief of which are dyspepsia and nervous troubles. Dyspepsia was noted in half of the sixty-six cases; constipation was also frequent and often accompanied by hemorrhoids; diarrhea was noted in some cases. Owing to their nervous troubles many of the patients may be classed as neurasthenics. Boils and carbuncles frequently accompany oxaluria. Boursier has not noticed the spasmodic cough recorded by some English authors. In the etiology of oxaluria heredity plays a great part, especially hereditary predisposition to arthritis. As determining causes Boursier attaches most importance to dyspepsia and nervous troubles; he considers that oxaluria should be regarded rather as a form of dyspepsia than as a separate disease; he does not, like Begbie, think that the dyspepsia and nervous troubles are due to a sort of "oxalemia." Boursier follows Hahn and Beneke in attributing oxaluria to an arrest in the catabolic changes normally undergone by nitrogenous material before excretion from the body; hence it is that oxaluria is induced by all the causes which lead to a disturbance in nutrition, the *ralentissement de la nutrition* of Bouchard, which prevents the proper oxidation in the tissues. Oxaluria may lead to the formation of oxalic gravel or calculus in the kidney or the bladder; these differ from those of uric acid, because in

the case of oxalate of lime the frequency and intensity of nephritic colic are in general greater and hematuria is more frequent; another difference is that uric acid sand is more often expelled than oxalic sand. Oxalic calculi take longer to form than those of uric acid, and therefore relapses after their removal are less frequently observed. Treatment with Contrexéville water is better at the place itself than at home. More than eight glasses, about two and one half liters, a day is not recommended. To complete the treatment at Contrexéville it is sometimes advisable to continue taking the water at home.—*British Medical Journal*.

INDICATIONS FOR TRACHEOTOMY.—Cnopf (*Münch. Med. Woch.*, May 8, 1894,) says that when membrane is present in the larynx two factors have to be reckoned with: (1) Irritation of the respiratory centers, and (2) narrowing of the larynx. Since the upper lobes of the lungs are under favorable conditions as regards inspiration, and the lower lobes as regards expiration, distension occurs in the former, atelectasis in the latter. The author's observations extend over 130 cases of laryngeal obstruction in children. On admission the position of the diaphragm was marked out on the chest behind, and subsequent variations noted. In 67 cases the diaphragm stood at the tenth rib in 3 cases, at the eleventh in 13, under the eleventh in 13, and at the twelfth in 38. The deepest position of the diaphragm was thus observed in a majority of cases, and this at all ages. In 112 out of 126 the deep position was noted by the third day, and usually it was present on admission. In tracheotomized cases carefully observed the position of the diaphragm was rapidly raised one space in 12 cases, and two spaces in 13. In only 4 cases did the diaphragm remain at the same level after tracheotomy. The position of the diaphragm is thus a measure of the laryngeal stenosis. The question of vesicular breathing and of the pulse must be considered, but with the arrival of the diaphragm at its deepest position the time for tracheotomy has come.—*Ibid*.

RENAL CASTS.—Aufrecht (*Centralbl. f. inn. Med.*, May 12, 1894,) discusses the origin of these casts. They must either be due to an exudation from the blood, or be a product of the renal epithelium. In favor of the latter view the following facts are cited: (1) In experiments in which the author tied one ureter, the renal epithelium was seen to contain masses of a hyaline substance, which latter subsequently made its way into the lumen of the tubules to form casts. (2) Albuminuria may exist without casts. (3) Casts may be present without albuminuria. (4) Casts may be seen in the collecting tubes of a different color, and having such a caliber that would not have allowed them to pass through Henle's loops; the author has shown this undoubtedly local origin in the tubules in the cholera kidney and in scarlatinal nephritis.—*Ibid*.

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JOHN L. HOWARD, M. D., Assistant Editor.

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THE AMERICAN MEDICAL ASSOCIATION.

The forty-fifth annual meeting of the National Association took place as billed in San Francisco, June 5th, 6th, 7th, and 8th. The hard times and the distance of the meeting-place from the eastern and middle parts of the country made the attendance small, but the proceedings were not wanting in wonted interest.

After the usual overtures of welcome, President Hibberd delivered an able address. Perhaps the most important point discussed by the speaker was the vexed question of representation in the Association. He points out the fact that many delegates are not admitted "because the credentials presented by them have not been issued by a society entitled to representation in the Association."

He deplores this state of affairs and advises such revision of the Constitution as will meet the difficulty: "Every man who belongs to any medical society should belong to a county or equivalent medical society, and every member of a county society should be *ipso facto* a member of his State society, and this should be an open sesame to the American Medical Association."

The statement current for some years past that the specialists have captured the Association and are running it on a political basis for per-

sonal ends is met by suggestions which, if carried out, would make the Association fully representative of the general medicine and surgery of the land.

The President touches upon the question of medical education lightly but wisely, in view of the occasion and the heterogeneous character of his hearers. He magnifies laboratory work and says: "The congress of medicine in the immediate future must be along biological lines. . . . We should apotheosize protoplasm, the dividing line between organic and inorganic matter, itself at once the result of the law of perpetual motion with which the Creator endowed the atoms of elemental matter, and the beginning of that phase of energy known as vital activity which constitutes the entire vegetable and animal kingdom. No one people or class of people can claim exclusively to have opened the way into this more primitive arcana of nature. The physicists of all nations, botanists, zoölogists, anatomists, physiologists, and their congeners have all participated in this progress. The distinction of Schawn, Virchow, Ferrier, Jackson, Pasteur, Koch, and Sternberg is due to their advanced study of biology."

The business incidents were few, and most of these of minor importance. The protest against the reduction of the number of assistant surgeons of the army, as recommended by the Chairman of the Committee of Arrangements on Military Affairs and the memorialization of Congress by appropriate resolutions condemning the scheme, was perhaps the most important item.

The resignation of the treasurership by Dr. R. H. Duglison deprives the Association of a most faithful and efficient officer.

A resolution by Dr. Marcy, of Boston, recommending the appointment of State Examining Boards, was carried.

The perennial contest over the revision of the Constitution and Code of Ethics of the Association was renewed with vigor by the would-be reformers, but was snowed under as usual by the more conservative members who were in majority.

The elevation of Dr. Donald Maclean, of Michigan, to the presidency will meet with general professional approval. It honors an eminent man and a long-time faithful worker for the good of the Association.

CHOLERA.

It would seem that since its invasion of Europe in 1892 cholera has maintained its foothold in spite of all the vigorous sanitary measures that have been brought to bear upon it, and fears are entertained that it may spread over a considerable part of the Continent during the summer.

The disease has passed from Russia into Austria and Eastern Germany, and is said to be more prevalent in France and Belgium than is reported by the daily press.

If such be the state of things in Europe we can not consider ourselves to be absolutely secure against invasion, although the prompt action of President Harrison summer before last in damming up the tide of immigration, and the brilliant results that followed the masterly hygienic measures instituted and carried out by the New York Board of Health, have a tendency to make Americans breathe easier in prospect of a threatened epidemic than they were wont to do under the old *regimé*. We should not, however, disregard the lesson of the yellow fever horror of 1878, and forget that local and personal hygiene must supplement and make effective all National and State sanitary measures.

WILLIAM T. BRIGGS, M. D., of Nashville, Tenn., died at his home in that city on the 13th inst. Although most of his life was passed in Nashville, where he flourished for nearly half a century as an eminent teacher, surgeon, and practitioner of medicine, he was by birth a Kentuckian, and he received his medical education in the far-famed Transylvania University.

He was born in Bowling Green in 1828, graduated in medicine in 1849, married in 1850, went to Nashville in 1852, where he did his brilliant professional work.

Dr. Briggs was the recipient of many honors, the author of several valuable works, and the founder of some scientific institutions.

His life was spotless, and his devotion to his profession beautiful.

Notes and Queries.

ONE DIFFICULTY IN THE WAY OF AN INTERNATIONAL MEDICAL LANGUAGE.—In a recent discussion at the New York Academy of Medicine upon the possibility of adopting Greek as an international language for scientific purposes, Dr. Roosa said that if we were to have an international language it could only be by a revolution of teaching methods, and he despaired of such a revolution because the hide-bound notions of college professors were simply beyond any ordinary assault. For a man from New York to talk to men from Cambridge or New Haven as to ways of teaching would be very much as if he should go to the tomb of the Prophet with his boots on.—*Boston Medical and Surgical Journal*.

ADMISSION REQUIREMENTS TO ILLINOIS MEDICAL COLLEGES.—The Illinois State Board of Health has revised the regulations concerning admission to medical schools in that State by depriving the various faculties of the control of entrance examinations in elementary studies, and requiring in place of such examination a certificate of graduation from a college, a high school, or a certificate from a second-grade teacher. Entrance examination must indeed have been lax when so generous a change raises the standard.

A FATAL LUNCHEON.—The Lancet reports the following almost incredible luncheon eaten by an English lad of fifteen years: thirty oranges, an entire cocoanut, cider, a mince-pie, mineral-water champagne, tea, cake, and lemonade. Immediately after this feast the boy died of cerebral apoplexy: and the Lancet remarks, "altogether the narrative is a melancholy and humiliating reminder that pleasure, above all things, can only be enjoyed in moderation and is poisonous in excess."—*Boston Medical and Surgical Journal*.

ACQUA DI PERUGIA.—The preparation of that charming old poison known as *Acqua di Perugia* was not so difficult or mysterious as has been supposed. It can easily be made, according to a recent writer, by killing a pig, cutting it up, and salting it down with arsenic. After being cooked the gravy from such a dish is even more fatal a poison than the unserrified metal.—*Ibid*.

BILLROTH'S SUCCESSOR.—Dr. Victor Ritter von Hacker, head of the Second Surgical Clinic at Vienna, has been unanimously recommended by the Professorial College to succeed the late Professor Billroth in the Chair of Surgery in the University of Vienna.

Special Notices.

PHENACETINE AND SALOL IN CYSTITIS AND URETHRITIS.—Cases of urethritis and cystitis are so difficult to cure that any remedy which promises to add to the physician's therapeutic resources in these conditions is deserving of careful consideration. In the *Times and Register*, May 12, 1894, Dr. J. W. Daniels, Houston, Texas, publishes the following formula, which he has employed with excellent results in both the primary and more advanced stages of urethritis and in acute and chronic cystitis:

R Salol,	grs. 3;
Phenacetine,	gr. 1;
Extract pichi,	grs. 3;
Para balsam,	grs. 5.

"PHENACETINE is added for its analgesic and antiphlogistic properties as well as for its well-known antipyretic and antirheumatic effects. In the ordinary stages of cystitis and in gonorrhea during the inflammatory stages of the disease the above combination has a charming effect.

"In the administration of SALOL and PHENACETINE in gonorrhea we in many instances anticipate one of the most painful complications of the disease, gonorrheal rheumatism, and by administering these well-known antirheumatic remedies in advance of its possible outbreak avoid this very painful and many times obstinate condition. In pichi we have a never-failing remedy for cystitis both in the acute and chronic form."

Dr. Daniel states that in the above combination the irritant effects of para balsam on the stomach are not observed; but, if the patient complains of tasting the balsam from eructations following its administration, he advises the addition of one drop of the oil of cinnamon to the prescription.

DR. C. W. HARRISON, Cooper, Tex., says: I inclose you five dollars, for which please send me another lot of ANTIDIPSOLE. The other lot I ordered from you, I used on an old habitual drunkard of many years' standing. He was half drunk when I almost forced the first dose down him. Now, six months since, he has not tasted it, and he and his family are happy.

CELERINA should be tried in lumbar pain, frequent micturition, and intestinal indigestion.

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DR. J. Q. A. STEWART.

THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNĀ.*"

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NO. I.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

PRESIDENT'S ADDRESS.*

BY J. Q. A. STEWART, M. D.

Gentlemen of the Kentucky State Medical Society, ladies and gentlemen, I wish to return my sincere thanks for the honor you have conferred upon me, in selecting me at your last meeting in Frankfort to preside over the deliberations of the thirty-ninth annual session of this Society. I am fully conscious of the honor, and have no words with which to express my gratitude, but if I shall acquit myself to your satisfaction I will have had my cup of happiness filled to the brim and overflowing. An address which will interest the general public as well as the profession is one expected of the President of this Society, and, in order to meet that expectation to some extent, I have selected the subject of the education, training, and medical treatment of the feeble minded.

I am conscious of the fact that this subject is more or less familiar to medical men, and I realize that in this paper I will present nothing new for your consideration. My desire, however, is to refresh your memory and to recall to you the duty you owe to this most unfortunate class of your brethren, and by doing this I hope to arouse through you a more thorough investigation into the causes of idiocy, and its possible prevention.

* Delivered at the Thirty-ninth Annual Meeting of the Kentucky State Medical Society, at Shelbyville, Ky., June 6, 1894.

It is common now to use the word feeble-minded, meaning thereby to include all degrees and types of congenital defect, from the simply backward boy or girl, but little below the normal standard of intelligence, to the profound idiot, a helpless, speechless burden, with every deficiency between these extremes.

The lack may be so slight as to involve only the ability to properly decide questions of social propriety, or conduct, or simply questions of morality, or it may profoundly affect every faculty.

In theory the differences between these various degrees of deficiency are marked and distinct, while in practice the lines of separation are entirely indefinite. I will present a case the more fully to illustrate a low-grade idiot:

A child from one to two years of age attracts the attention of some member of the family, and by its singular actions arouses the fear that there is something wrong with it. The mother is notified of these eccentricities, and the matter is discussed by the family. She does not know what is the matter with her child; she is not willing to admit that it could be mentally deficient. Indeed she is the last one to see it, and she resents with profound indignation the suggestion that her child could by any possibility of means be defective in any way. She has, however, noticed that it does not respond to her affectionate embraces, and gives no heed to her efforts to attract its attention. She notices that it has no wants, or if it has, gives evidence of them only in cries of discordant sound. It can not talk; its muscular movements lack co-ordination; the vacant and expressionless eye, the inattentive ear, the slow development of the physical as well as the mental structure all indicate that this child has come into the world "scarce half made up," and is of very low intelligence or an idiot. After many anxious hours and days of watchful solicitude, the mother at last reluctantly admits to herself that all is not right with her little one. What a shock the knowledge of this is to all interested in this child. But the poor mother, what of her? In her despair she sends for her doctor. You see the child, perhaps you have noticed it before in your visits to the family, and have been too timid to tell the mother the truth. You are apt to decide hastily that the child is beyond your help. You feel that you can not give to the distressed mother any hope that medicine will avail. She has sent for you, her doctor in whom she has the utmost confidence, and believes with God's help you can restore to her child it lost or undeveloped reason. She has unbosomed herself to you and asks for aid.

Are you to abandon her in this most trying hour? Would you not rather watch its development for the next few years? Who but you can advise the proper treatment of the little one, the proper hours for its food, exercise, baths, sleep, etc.? Who knows so well as you that upon its perfect health depends its mental and physical development, and who has the knowledge to direct this treatment so well as the doctor? More depends upon you at this time of the child's life than will ever come to any one afterward into whose care the child may fall.

The treatment must commence from the moment of the child's birth, and it must be continued uninterruptedly until it is old enough to be placed in an institution especially adapted to its training. In order to give you a hurried history of the origin and first efforts to mentally develop the idiot, I quote the following statistical account from a paper read at the National Conference of Charities and Corrections in Chicago, by Dr. Fernald, of Massachusetts. He says:

The first recorded attempt to educate an idiot was made about the year 1800 upon a boy found wild in a forest in the center of France. This boy could not speak any human tongue and was devoid of all understanding and knowledge. The attempt was finally abandoned. In 1818, and for a few years afterward, several idiotic children were received and given instruction in the American Asylum for the Deaf and Dumb, at Hartford, and a fair degree of improvement in physical condition, habits, and speech was obtained. In the year 1828 Dr. Ferret, physician at the Bicetre at Paris, attempted to teach a few of the more intelligent idiots who were confined in the hospital to read and write, and to train them to habits of order and cleanliness. In 1831 Dr. Fabret attempted the same work at the Salpêtrière, and in 1833 Dr. Voisin opened his private school for idiots in Paris. None of these attempts were successful enough to warrant their continuance. In 1833 Dr. Edward Seguin, a pupil of Itard and Esquirol, began the private instruction of idiots at his own expense. After seven years of patient labor and experiment, and the publication of two or three pamphlets describing the work, a committee from the Academy of Sciences at Paris examined critically and thoroughly his methods of training and educating idiot children, and reported to the Academy, giving it the highest commendation, and declaring that, up to the time he commenced his labors in 1837, idiots could not be educated by any means previously known or practiced, but that he had solved the problem. His work thus approved by the highest authority, Dr. Seguin continued his private school in Paris until the Revolution in 1848, when he came to America, where he was instrumental in establishing schools for idiots in several States. In 1846 Dr. Seguin published his classical and comprehensive treatise on Idiocy, which was crowned by the Academy, and has continued to be the standard text-book of all interested in the educa-

tion of idiots up to the present time. His elaborate teaching and training of idiots consisted in the careful adaptation of the principles of physiology through physiological means and instruments to the development of the dynamic, perceptive, reflective, and spontaneous functions of youth. This physiological education of defective brains as a result of the systematic training of the special senses, the functions and the muscular system was looked upon as a visionary thing, but it has been verified and confirmed by modern experiment and research in physiological psychology. Dr. Seguin's school was visited by scientists and philanthropists from nearly every part of the civilized world, and, his methods bearing the tests of experience, other schools were soon established in other countries based upon his methods. When the results obtained by these great forerunners in the training of idiots became known, and through the earnest efforts of a few philanthropists in England the work was commenced in that country, a private school was established in Bath in 1846, and later on the finely appointed establishments at Colchester and Earlswood. From the success attending the efforts made by these scientists the necessity for establishing schools in the United States became apparent. Following out the plans heretofore adopted in this country of caring for the insane, the deaf mutes, and the blind, why not the helpless and neglected pauper idiots who had no homes, and as a rule were sent to the jails and the poor-houses? A few had been received in the schools for the deaf mutes and the blind, and they showed considerable improvement after a period of training. Some especially troublesome and of a low grade were sent to the insane asylums, and it was shown, even in these schools and asylums where no special training was given them, that much improvement followed. It was, however, soon discovered that these institutions were not adapted to the wants of the idiot. It was as necessary to have special and peculiar training for them as it was for the blind and deaf mutes. On the 1st of October, 1848, the first State school for idiots in America was opened. The direction of the school was undertaken by Dr. Howe, the Superintendent of the Perkins Institute for the Blind, and was afterward called the Massachusetts School for Idiots and Feeble-minded Youth. Two months after this a private school was opened at Barre, Mass., by Dr. H. B. Wilber.

Twelve years after the opening of Wilber's school he was invited by General John Rodman, who was then a member of the General Assembly of this State, to come to Kentucky with a few of his pupils to show to the members of the legislature, which was then in session, their proficiency as the result of his training after the Seguin methods. This exhibition was so successful, and demonstrated so conclusively the advantage to be derived from the systematic methods of instruction, that General Rodman immediately formulated and presented to the General Assembly a bill to establish the Kentucky institution for the education

and training of the feeble-minded children, and in 1860, in August, the first pupil was admitted. In July, 1857, the legislature of the State of New York established a school for idiots, and the trustees selected Dr. H. B. Wilber, who had for more than three years previously so successfully organized and conducted the private school at Barre, Mass., as the superintendent. In the first annual report of the trustees of this institution, published in 1851, the aims and purposes of the proposed school were summed up as follows:

We do not propose to create or supply faculties absolutely wanting, nor to bring all grades of idiocy to the same standard of development or discipline, nor to make them all capable of sustaining creditably all the relations of social or moral life, but rather to give to dormant faculties the greatest possible development, to apply these awakened faculties to a useful purpose under the control of an aroused and disciplined will. At the base of all our efforts lies the principle that as a rule none of the faculties are absolutely wanting, but dormant, undeveloped, and imperfect.

This school attracted much attention from educators and others, and was frequently and critically inspected by members of the legislature and other State officials. On the 11th day of April, 1853, the legislature authorized the erection of new buildings. The citizens of Syracuse donated the land, and the corner-stone of the first structure in this country built expressly for the purpose of caring for and training idiots was laid September 8, 1854.

The school at Syracuse continued under the management and direction of Dr. Wilber until his death in 1883. In this school the physiological methods of education have been most thoroughly and scientifically carried on by his successor, Dr. Carson, and a high degree of success attained. Pennsylvania was the third State to take up the work. In 1855 the present site at Elwyn was secured and the foundation was laid for the present magnificent institution village with nearly a thousand inmates. The Ohio institution at Columbus was established April 17, 1857, and under Dr. G. A. Doran, who has had charge of it since its inauguration, has made most wonderful progress. The State of Ohio has always provided for her feeble-minded children on a more liberal and generous scale than any other State. This institution, with its eleven hundred inmates, its substantial buildings and splendid equipments, its admirably conducted school and industrial departments, is one of the best institutions in the world devoted to the care and training of this special class. The Connecticut school for imbeciles at Lakeville was

established in 1858. It was the fifth school organized in the United States, and Dr. H. M. Knight was appointed the first superintendent. The Kentucky school at Frankfort was the sixth public school established in the United States for the education of the feeble minded. I have thus brought you to the establishment of this school to show that Kentucky was among the first to realize the importance of caring for and educating this class of her neglected children. I can not go further into the history of the organization of schools for idiots. Suffice it to say that the good work did not stop here, for many schools since then have been organized, until now there are nineteen public and ten private institutions in the United States. For many years Kentucky has made an appropriation of from \$75 to \$100 per annum for the support of any pauper idiot who might apply for it. This seems to be generous and beneficent on the part of the State, and many hundreds of applications have been made for it, until the sum paid out of the treasury now reaches over \$100,000 annually. The doors of the treasury being thus opened to the attacks of the dishonest, and the field so inviting to the unscrupulous, that, like the scalp law, idiots are being made out of most any kind of material, and frauds are daily perpetrated upon the State treasury.

The demand has become so heavy that almost every legislature has made an effort to reduce the sum appropriated, but without success. Many counties report to the Auditor from twenty to thirty-five pauper idiots, and they draw annually from the State between two and four thousand dollars for each county. I have for many years advocated the repeal of the idiot law, not only because of the frauds perpetrated upon the treasury (and there are many), but because I believe the law to be the cause of the most shameful abuse and neglect of the very class of persons it was intended to benefit. These persons are unable to complain and are mostly without friends; and also because I believe and know that there are many among these so-called pauper idiots who could be taught some useful industry if the law was repealed and all worthy pauper idiots were sent to the school at Frankfort. Until sixteen years ago the institution was conducted as a school. It followed closely the plans laid down by Seguin, and met with the success usually attending his methods of instruction. This appeared to be sufficient for all purposes, but it did not seem to me to be the only object to accomplish. There were several large girls and boys who had received all the benefits in the way of school training that could be given to them, and who had remained in this school nearly as long as the law would allow them

They had received the ordinary school education. They knew how to read and write, and were familiar with the common rules of arithmetic. They could sing and go through satisfactorily with the calisthenic exercises, which were all very pretty and attractive, but the question presented itself to me, would the acquisition of these school exercises alone enable these people to make a living for themselves after they were dismissed from the school? Were they prepared by these accomplishments to battle with the world for bread, and had they been taught any practical thing during their school life which would enable them when turned from the doors of the institution to take up the serious duties of life and hold their own in the struggle they must make with the world? Every feeling of my nature revolted at the suggestion of turning them out into the world, for I knew they were in nowise prepared for the serious responsibilities they would encounter. Then, in connection with the school department, the idea of attaching some industrial occupation which would to some extent enable them to compete with others was proposed. The subject was discussed at a meeting of the Board of Commissioners, and it was decided to try the experiment. This was such a radical departure from all previous efforts in behalf of this class of persons that many misgivings were indulged in by those who were cognizant of the plans proposed. There were no precedents to follow. It had never been attempted before in any school of this kind, and those engaged in the work in other States were doubtful and gave the scheme no encouragement. They took the position that the State ought to care for its defectives if need be all their lives without requiring any thing of them. This was admitted by those of us who believed in the final success of the undertaking, and we urged that if nothing else was accomplished the very fact of a boy being permitted to drive a nail or of a girl to make herself an apron would act as an incentive to better work in the school-room. After much discussion it was decided to erect a laundry for the girls and to provide a sewing-room where lessons could be given in these industries, and half of every school-day in the week was devoted to these branches. The success attending these experiments showed the wisdom of the originators of the idea, and then rapidly followed a shoe shop, carpenter shop, a broom and mattress shop, and other light trades for the instruction of the boys, each of whom was selected according to his capacity for such trade as was best for him. And Kentucky has the honor of being the first to introduce and successfully teach industrial pursuits to idiotic children, and now many

pupils of each sex are annually sent away able to make a living for themselves by their trades, and are respectable members of society. But even now with all these improvements in such successful operation, with the school department showing the progress of the pupils to be equal to that of any other school of this class in this country or the world, the industrial departments managed without expense to the State, we find that every legislature has among its members those who urge its abolishment because of the cost to the State for its maintenance. It would be the truth to say that the incentive urging these men to abolish the public institution is because of the fact that the counties they represent (or misrepresent) would receive the seventy-five dollars for each of the pauper children thus returned to them. These blatant members never visit the institution and know nothing of its work. They are consequently ignorant of the great benefit it bestows on those for whom it was intended. Is it at all remarkable when you consider the amount of money these counties receive as a result of the operations of the idiot law that we find their representatives boldly proclaiming that they came to Frankfort pledged to destroy the public institution that such of the children who are from their counties may be returned? Is it at all remarkable that we find members of the legislature ready and willing to introduce measures to destroy or cripple the usefulness of the institution, that thereby they might reward some henchmen who were useful to them at the polls by appointing them as guardians or committeemen to the children so returned? There are many children in the State kept from getting an education because of the stipend received from the State for their support as idiots.

Indeed I know of several cases where the idiot boys make the living for the family, and the parents receive the money with the utmost complacency, just as if their boys were pauper idiots. I know of a man who married the sister of a supposed pauper idiot whom he has foisted upon the State as an idiot that he might receive the sum allowed, and who says he would not take seventy-five dollars for her labor, as she does all the work of the family.

Don't you see that the law amounts, in fact, to a premium on idiocy, and is often taken advantage of by the unscrupulous to foist upon the State any pauper child whose mentality appears to be under the normal standard, so that a committeeman may receive seventy-five dollars and the child barely a subsistence. The very low-grade child is not often sought after. They generally fall to the lot of the poor-houses or are

sent to the lunatic asylums. But it is the boy or girl able to work, who by their labor, in addition to the money received by the State, which makes it a good thing for their keepers. Many of these helpless children would be so improved by the training given them at the public institution as to make them able to earn their own support by their labor and take care of themselves, whereas, as the law now is, they are virtually condemned to a lifetime of toil, ignorance, and degradation.

Dr. Kerlin, of Pennsylvania, who was one of the foremost men in our ranks, has spent a lifetime in the great work of the amelioration of the condition of the idiot, was until his death, only a year ago, the Superintendent of the Pennsylvania Institute for Feeble-minded Youths, has said:

There is no field of political economy which can be worked to better advantage for the diminution of crime, pauperism, and insanity than that of idiocy. The early recognition of some of its special and more dangerous forms should be followed by their withdrawal from unwholesome environments and their permanent sequestration before they are pronounced criminals and have by the tuition of the slums acquired a precocity that deceives even experts. Only a small percentage should ever be returned to the community, and then only under conditions that would preclude the probability of their assuming social relations under marriage or becoming sowers of moral or physical diseases. How many of your criminals, your inebriates, your tramps are congenital imbeciles? How many of your insane are really feeble-minded or imbecile persons? Wayward, neglected in their early training, and at last conveniently housed in hospitals after having wrought mischief, entered social relations, reproduced their kind and antagonized experts and lawyers, puzzled philanthropists, and in every possible manner retaliated on their progenitors for their origin and on the community for their misapprehension. How many of your incorrigible boys lodged in the houses of refuge to be half educated in letters and wholly unreached in morals are sent into the community the moral idiots they were at the beginning, only more powerfully armed for mischief and pauperism, breeding other paupers; what is it but imbecility let free to do its mischief.

It is no fault of the feeble-minded boy or girl if their tendency is to lead dissolute lives. We owe to them in their early childhood the fostering care of institution life, and even in adult life they will need the watchful guardianship of persons specially adapted to this work. A feeble-minded girl is exposed as no other girl in the world is exposed. She has not sense enough to protect herself from the perils by which she is surrounded. Often bright and attractive, if at large, she either

marries and brings forth in geometrical ratio a new generation of defectives and dependents or she becomes the irresponsible source of corruption and debauchery in the communities where she lives. There is hardly a poor-house in this land where evidences of this kind of neglect are not to be seen. The plan to relieve this condition, and which is advocated by the best minds of the nation, is to colonize the idiot and feeble-minded in one institution and under one management. The school department should be the central idea. Around this should be erected buildings for the custodial care of low-grade idiots, epileptics, and the paralytic. A system of discipline should be carried on in each of these departments, so that as improvement is made in any child in either of these sufficient to warrant its transmission to the school department, it may be done. The expense, which has always been the cry of demagogues and record makers in the legislature, will be no greater than is now expended by the State, and the pauper idiots will get the benefit of all the money appropriated for them.

After the organization and establishment of the Kentucky institution in 1860, the war of the rebellion came on, and the South since then has been too poor to establish such institutions, and Kentucky is the only State south of the Ohio River thus provided. Many inquiries are constantly being made from these States, and I have no doubt that in the near future every one of them will be provided with schools for the education of idiots. There is one idiot to every eight hundred of the population of any civilized country. In the United States there are eighty thousand of them. Kentucky, in a mistaken way, is endeavoring to take care of nearly fourteen hundred of them at a cost of over one hundred thousand dollars per annum. Most of these you will find in the poor-houses, the jails, the asylums for the insane, or in the keeping of committeemen. Only about one hundred of them are at the public institution where they all ought to be. The asylum for the insane is no place for them. It costs the State as much to keep them there as it would at the institution expressly provided for them. What good can be accomplished then by abolishing the institution for the feeble-minded. Many of the inmates would have to go to the asylum or to the poor-houses, and there would be nothing gained and irreparable damage done.

For want of time I can not discuss the subject further. I plead for those who can not plead for themselves. I sum up by reiterating the points touched upon in this paper. Let the doctor realize that much depends upon him in the early years of the child's life—that such

medicines as needed may be promptly provided under his immediate supervision; that out-door exercise, massage, proper food, proper clothing, proper bathing, and all the minute details necessary for the child's development physically is attended to. Let the State provide more bountifully for the pauper idiots. Let separate buildings under the care of one central government be supplied to those who may be entitled to them. Let the idiot law be promptly repealed, and have all pauper imbeciles collected under one grand management so that they can be cared for and treated scientifically; the epileptic in one department, that the doctor may have an opportunity to study his particular wants, for he can not be treated anywhere successfully unless he is provided with necessary buildings and necessary appliances. Let the paralytic have another department, and let the low-grade idiots have another department, as is now done by all other States making any pretension whatever to provide for them. Then, and not till then, will the State and the profession have fully performed their duty to this afflicted class and real benefit accrue to the child.

God help the imbecile! more dark their lot
Than deaf or dumb, the cripple or the blind;
The closed soul vision theirs, the blighted mind,
Babes though full grown, the page of life a blot.
Yet say, shall their affliction be abhorred,
Their need o'erlooked; shall Charity pass by
To leave them to perish with averted eye?
Forbid, the love that burns to serve her Lord.

FARMDALE, KY.

LAPAROTOMY FOR RELIEF OF INTUSSUSCEPTION; WITH REPORT OF A CASE OCCURRING IN A CHILD AGED NINE MONTHS.*

BY W. O. ROBERTS, M. D.

Professor of the Principles and Practice of Surgery, University of Louisville.

On Tuesday, April 26, 1894, at 12:30 P. M., I was called by telephone to Twenty-fourth Street and Griffiths Avenue by Dr. Turner Anderson to do a laparotomy for intussusception. Dr. Henry Heuser, who happened in my office as I was starting, accompanied me. On reaching the house we learned from Dr. Anderson that he had seen the case for the first time at eleven o'clock, and after a fruitless attempt to reduce the intussusception he advised a laparotomy, and telephoned me. The child had been sick since the Friday morning preceding our visit. A

*Read before the Medico-Chirurgical Society, May 4, 1894. For discussion see page 21.

west-end physician had been in attendance, who, after trying the usual remedies without any benefit, suggested operative interference, and was promptly relieved of the case. Dr. Anderson was then called.

The child was nine months old, a girl, had always been perfectly healthy, and was well developed. The attack came on suddenly without any assignable cause. It presented the usual symptoms, viz., intense paroxysms of pain, frequent straining at stool with passage of blood and mucus, and frequent vomiting. The intussusception extended to the anus and was very deeply congested. A sausage-shaped tumor could be distinctly outlined in the left side of the abdomen; the abdominal cavity was but slightly distended. The intussusception could be pushed up as far as the finger would reach with perfect ease. While going under chloroform the straining effort forced the intussusception two inches outside the anus. As before stated it was quite deeply congested, but no ulceration or excoriations were detected.

Notwithstanding the feeble condition of the child's heart a laparotomy was performed. The abdomen was quickly opened, in the median line between the umbilicus and symphysis, and the tumor was found a little below and to the left of the umbilicus. After gentle traction, assisted by Dr. Anderson pushing from below, the intussusception was relieved. It proved to have started at the cecum, which had extended clear through the colon and the rectum, taking with it the ileum and its mesentery. No injury was done the gut in the operation, and it seemed to be in good condition after the intussusception was relieved. The child became pulseless during the operation, and a number of hypodermatic injections of whisky were given. It was on the table only about twenty-five minutes. After being put to bed it was given morphine and atropine hypodermatically, and for a while rallied considerably, but finally began to sink, and in a few hours, like the majority of such cases, it died.

In looking over the history of intussusception I find that, according to Treves, three eighths of all cases of intestinal obstruction are due to intussusception. Heusner puts the proportion at three fourths. The American Text-Book of Surgery says thirty per cent, excluding cases due to herniæ and malformations, and Moullin estimates it at about one third. Fifty per cent of the cases occur in children under the age of ten years, and twenty-five per cent in the first twelve months of life. Eustace Smith says that obstruction is rarely due to any other cause in children. Of fifty-two cases collected by J. Lewis Smith, thirty-one occurred during the first year of life. Hare, in his late work, says it is

the commonest of all causes of obstruction, and during the first year of life it is more common than all the other causes combined. After the age of five years it becomes comparatively rare until the fortieth or fiftieth year when it again increases in frequency of occurrence. During the first year of life it is met with more frequently in boys than in girls, in the proportion of about three to one, but as the age increases the relative disproportion gradually diminishes. Under twenty months of age those that are attacked are usually sturdy and well-nourished children, while in older ones it is more frequently met with in those that are run down in health from some intestinal disorder.

Rilliet attributes this comparative frequency in infants to "the looser connections of the cecum in the iliac fossa at this age, and also to the imperfect development of its muscular bands, which lessens its resistance to the penetration of the small intestine into its interior." J. Lewis Smith, I think, gives about the best explanation of the comparative frequency of the disease in children. He says: "It is due partly to the anatomical character of the intestines in this period of life, and partly, doubtless, to the fact that there are more frequent irregularities in the intestinal movements than in older children. In fact the walls of the intestines are thin, the mucous and muscular coats and the connective tissue being much less developed than in those that are older; the mesentery and the meso-colon have also greater depth as compared with the same in other periods of life, except the meso-colon at the points where it passes over the kidneys, in which places it is very short, or even in some cases nearly absent. Moreover, the space occupied by the large intestine, in which part of the digestive tube intussusception commonly occurs, is much shorter relatively to the length of the intestine than in those that are older." In about thirty measurements which he has made of the length of the large intestine and the space occupied by it the latter was found in the average about one third that of the former, which of course necessitates doubling of the intestine on itself.

The varieties as to location are ileo-cecal, where the cecum and ileum are turned into the colon; ileo-colic, where the ileum passes through the ileo-cecal valve and finally brings along with it the colon; the colic, in which the colon alone is involved, and the enteric, where the invagination is located entirely in the small intestines. The ileo-colic is by far the most frequent. Treves says about seventy per cent of all cases in babies are of this variety. After invagination takes place, peristaltic movements are excited, and the intussusception is pushed farther and farther until frequently it protrudes through the anus.

In the case reported by Harrison Cripps (Lancet of June 2, 1888), "the patient, a child seven months old, was admitted to the hospital with the bowel in a gangrenous condition protruding from the anus. It sloughed away gradually, and at the end of a month the case was discharged cured. The child afterward died of scarlet fever, and at the autopsy the small intestine was found attached to the anus. There were no traces of the ascending, transverse, or descending colon."

In about one half of all the cases the children are in perfect health, and the attack comes on suddenly without any assignable cause. Most authorities claim diarrhea, colic, tenesmus from any cause, as constipation, polypus, phimosis, etc., play a considerable part as etiological factors. Jacobi and others deny this. Some cases seem traceable to falls. Jacobi reports one case that was produced apparently by a child's being jumped up and down in its nurse's arms.

Symptoms and Treatment. The symptoms usually come on suddenly and with great violence; especially is this the case when invagination occurs at the ileo-cecal opening. The symptoms are much less severe when invagination is located in the colon. Pain is paroxysmal in character, due to the irregular peristaltic action of the bowels, and these paroxysms steadily increase in frequency and severity. Vomiting is a prominent symptom, not so marked however as in strangulated hernia, in the beginning of the attack, but after a while it becomes very marked. The abdomen at first is not tender, and slight pressure seems to give comfort to the patient; after a while, when inflammation occurs, of course it becomes exceedingly sensitive. It is not always distended. In the beginning of the trouble there is not complete occlusion, and the consequence is that distension is not marked, but after swelling takes place the lumen of the protruded portion becomes obliterated, then distension becomes very marked. In these cases, if not relieved, inflammation occurs, and in a small proportion sloughing of the intussusception takes place, and in cases where this does occur about forty-one per cent recover. Many of these, however, afterward die from perforation of the cicatrix. A tumor can be detected usually in about one half the cases. The prognosis is very bad.

In the American Text-Book of Surgery it is claimed that about eighty per cent of the cases treated medically die. Treves gives the mortality in one hundred and thirty-three recorded cases, where radical operations were performed, as seventy-two per cent. When reduction was easy it was thirty per cent, and ninety-one per cent when reduction

was difficult. Hare, in his work, gives the mortality seventy-four per cent when the cases were treated medically, and seventy-five and four tenths per cent where abdominal section was done. In most cases where abdominal section has been performed the cases have been treated for quite a while by medical means, and of course it does not give the surgeon a proper showing. I have no doubt if early operation was performed that the mortality would be much less.

The medical treatment consists in the use of opium and belladonna for the purpose of relieving pain and quieting peristalsis, then endeavoring to overcome the intussusception by injections and by insufflation. Injections should always be used early in the case. If they are deferred until inflammation occurs, until the intussusception becomes fixed, then I believe it is exceedingly dangerous, the danger being overdistension and rupture of the gut. The same thing will apply to the use of insufflation. Some authorities recommend that injections be used without anesthesia, so that it can be told by the sensation of the patient when there has been sufficient water thrown into the bowel. At the same time they recommend that insufflation be used under an anesthetic with the patient in the inverted position. After a trial of these means for a short time with negative results, then operative interference ought to be instituted at once. The best point of doing a laparotomy is in the median line. It is usually not difficult to reach the intussusception by this incision, but if this can not be done, it is a very easy matter to make an incision directly over the seat of the tumor. Great care should be taken in overcoming the invagination; by pressure upon the gut you can empty it to a certain extent of its distended blood-vessels, then by careful pressure upon the protruding portion from below, as was done in the case I operated upon, you can usually overcome the invagination without much difficulty, provided inflammation has not occurred and adhesion of the serous surfaces taken place. When this has occurred they may be broken up usually by means of a probe. Where we fail to relieve the invagination then it becomes necessary either,

First, to make a lateral anastomosis above and below the intussusception; or,

Second, to resect the affected portion of the gut and make an end-to-end anastomosis; or,

Third, to make an artificial anus.

The mortality is always very much greater where the trouble occurs in the young.

LOUISVILLE.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, May 4, 1894, Dr. T. S. Bullock, Vice-President, in the chair.

Dr. A. M. Cartledge (Abdominal Tumor—continued report): This gentleman, Mr. H., was before the Society one month ago for examination because of an abdominal tumor. The consensus of opinion at that time was that the spleen constituted the tumor. Some days afterward I did an exploratory section, and the trouble was found to be the liver, which is displaced, with a number of adhesions around it, showing evidences of several attacks of circumscribed peritonitis. The adhesions were carefully separated, but the liver was, of course, not raised to its normal position. In the light of second knowledge it is very easy to demonstrate the situation of Mr. H.'s liver; he has no liver in the normal site. It has not been quite four weeks since the operation, and his recovery from it has been uneventful.

DISCUSSION.

Dr. William Bailey: Has the operation been the means of affording any relief?

Dr. Cartledge: I believe there has been great relief. He says he feels much better; the liver has decreased very much in size, being now almost normal, except its situation; his complexion has also improved very much.

Dr. T. S. Bullock: I saw Dr. Cartledge perform the exploratory laparotomy on this man, in fact I was the anesthetist, and he called my attention to the situation of the tumor and its appearance. It could be demonstrated at the first glance that there was absence of the liver in its normal situation, and its presence in this abnormal position—a dislocation of the liver.

Dr. Cartledge: Mr. H. has been examined repeatedly by some of the brightest and most eminent doctors, as he says, in several States, and no one even suggested that the trouble might be the liver. It has been diagnosticated various things, but the correct diagnosis was never made until after the exploratory incision.

*Stenographically reported by C. C. Mapes.

Dr. J. W. Irwin: I recollect that I examined this gentleman when he was presented by Dr. Cartledge before the Society on a former occasion. I am very glad that the doctor brought the case before us again to-night and corrected a very grievous error. It seems reasonable that any man should be able to tell by percussion whether there was dullness in the region of the liver or spleen, but this case seems to be one that has misled, so to speak, a great many. At the previous examination his abdomen was more tympanitic than it is to-night; there was not any very marked dullness over the region of the spleen, in fact hardly any, and there was perhaps not quite so much over the region of the liver; yet there was some defined dullness. However, the case was hardly one that would be considered in a perfect state for examination. The abdomen was very tympanitic at that time, neither was his position from necessity such as we would like to have. But this illustrates a very important thing, how ready we are to give opinions without making a thorough and careful investigation of the case. I believe I am among those who stated at the previous examination that there was practically no dullness over the region of the spleen, and can only account for it as I have stated.

Dr. Turner Anderson: It is the most remarkable case that I have ever seen presented to a medical society. I have never before seen a case where the liver was in the left iliac fossa.

Dr. A. M. Vance: I examined this man when he was before the Society on a former occasion, but did not make any diagnosis. The case illustrates the fact that we ought to be very careful and go slow in making our diagnoses in such cases.

Dr. Bullock: I was present when several of the members percussed this patient's liver; and although Dr. Cartledge stated when he presented the case that there was a suspicion that it was a displaced liver, he was not certain until he made the exploratory incision. I listened while Dr. Marvin and several others percussed the region of the liver at the first examination, and thought I detected the normal dullness of the liver, and was very much surprised to find, when exploratory incision was made, complete absence of the organ in the normal situation. Dr. Cartledge at the operation demonstrated to his own satisfaction, and to that of every gentleman present, the absence of the liver in its normal site; he demonstrated the lobes of the liver and the gall-bladder in the abnormal position, and there can be no question about it being a displaced organ.

Dr. W. O. Roberts (Paralysis Facialis): Two weeks ago this young man was driving in a dog-cart; his horse fell and he was thrown out, striking his head on the pavement. He was unconscious for fifteen minutes. After regaining consciousness he was taken home in a carriage, and had considerable hemorrhage from the ear. The hemorrhage kept up, not continuously but at intervals, for forty-eight hours; there was not succeeding the hemorrhage any watery discharge from the ear. Tuesday following the accident facial paralysis was first noticed. I had him come here to-night because I thought it was a case that would be of interest to the specialist. He evidently has either a fracture through the temporal bone involving the canal through which the nerve passes, or a clot, or inflammatory product.

The accident occurred on Friday, and facial paralysis developed the following Tuesday. All that was done in the way of treatment was, during the time the hemorrhage was going on, the ear was thoroughly irrigated with hot water with a view of stopping the blood. Since then it has been frequently irrigated, because, while there was little or no discharge from the ear, it was quite offensive. Dr. Ray has examined the case and can tell us the condition in which he found the canal.

DISCUSSION.

Dr. J. M. Ray: Dr. Roberts kindly asked me to see this patient on Wednesday following the accident. I examined first his ear by the speculum; found the roof of the canal had been pushed down. The surface of the drum membrane was covered with blood which had become dry. There was no discharge from the ear. As far as his hearing powers were concerned, air conduction was destroyed, but he could hear the tuning-fork by bone; this, I think, demonstrates the fact that the internal or nervous portion of the ear is not involved. Therefore there is a fracture probably extending through the roof of the canal and through the membrana tympani into the roof of the middle ear, involving the fallopian canal. The question of course comes up as to whether the paralysis is due to fracture and pressure by a spicula of bone upon the nerve, or whether it is due to hemorrhage. The prognosis to a certain extent also depends upon that. I have seen several cases of this kind which recovered very promptly. Fractures through the temporal bone are, I think, quite common in head injuries. Dr. Vance will recall a case that we saw some time ago. I reported the case at the time, and looked up statistics on the subject and found there was quite a variety

of opinion, some authorities claiming that the fracture did not involve the roof of the middle ear unless there was escape of the cerebro-spinal fluid, others claiming that frequently there is no escape of fluid. Buck reports cases wherein there was no escape of fluid and very little hemorrhage. Fractures through the middle ear cavity, and even fractures about the base, are quite frequently overlooked. I have seen several cases of head injuries where there was paralysis of different muscles. Dr. Vance will remember the case of a child I saw with him, where there was paralysis of the sixth nerve from head injury, and at the same time enormous retinal hemorrhages. The child recovered very promptly.

Dr. S. G. Dabney: It would seem to me, from the paralysis coming on three or four days after the injury, the case should be regarded as more hopeful. If there was a fracture and pressure of a spicula of bone on the nerve, we would naturally expect paralysis to have taken place immediately. Ruptures of the drum membrane from falls or blows on the ear are not rare. This spring I saw one produced by a snowball hitting the ear. I have seen several cases similar to the one shown to-night, but without the facial paralysis. I do not remember to have seen one having that feature. I remember one case resulting from a child sliding down the bannisters, falling at the bottom and striking the head. There was unconsciousness for some time, and later there was quite a free discharge of blood, without any watery discharge from the ear. There was a rupture of the drum membrane with some disturbance of gait, and later some disturbance of sight of the same side. Taking into consideration the disturbance of sight led me to make an ophthalmoscopic examination in that case, and I found the retinal veins of the corresponding eye considerably engorged. All the symptoms disappeared in a few weeks, the drum membrane healed, and the hearing was good, though never quite perfect.

Dr. William Cheatham: It seems to me that what Dr. Dabney says about the case shown by Dr. Roberts is about correct. The paralysis coming on so late leads me to believe that it is most likely from swelling and not from pressure of a spicula of bone. My experience has been in these cases of paralysis that they get well, but that they are a long time doing so. I have seen them as long as three years making a satisfactory recovery, especially where the eye muscles have been involved. In a great many cases there is some general disease of the nervous system, which should be taken into consideration in making a prognosis.

Dr. Anderson: I associate this case with Bell's paralysis, the result of trauma, very similar to the conditions that we observe in forceps application where the momentary depression of the mastoid process is such as to permit undue pressure upon the nerve as it passes through the canal.

Dr. Irwin: Two or three years ago I saw a boy, sixteen years old, who had been struck by a sixteen-pound iron ball on the frontal os; he was knocked senseless. I saw the patient five hours after receipt of the injury and he had some bleeding from the ear, followed by a straw-colored discharge—serum. There was no paralysis attending the injury. I think very likely in Dr. Roberts' case the diagnosis is correct, and I believe the trouble is due to inflammatory effusion. Whether there is a fracture or not, no one can tell.

Dr. H. A. Cottell: About the only question arising in the case is the location of the hemorrhage; the probabilities are that the trouble is due to pressure upon the facial nerve, the result of hemorrhage or of inflammatory action, as Dr. Anderson suggests. It is possible, however, that the condition is purely hemorrhagic. You can indulge in almost any number of theories as to the cause, but one thing is certain, there is pressure upon the nerve in the fallopian canal. I should say the prognosis is favorable in such a case; about as favorable as it usually is in Bell's palsy. Bell's palsy is a traumatic palsy. The way the disease came to be called "Bell's palsy" was by virtue of the fact that Sir Charles Bell attempted to relieve a very severe facial neuralgia (before the functions of the fifth and seventh nerves were discovered) by incising the seventh nerve. This produced complete paralysis of one side of the face. Bell's palsy was therefore originally a traumatic palsy. We know that in a very large percentage of cases of Bell's palsy (paralysis of the facial muscles) the trouble is in the fallopian canal; the facial nerve in going from the internal auditory meatus to the stylo-mastoid foramen traverses the petrous portion of the temporal bone, and any trouble, be it congestive, traumatic, inflammatory, or whatever it may be, causing pressure upon the nerve in that region, will produce what we call facial paralysis. If all the muscles are involved we know that the trouble is peripheral; if there is involvement of only a few of the muscles we know the trouble is central. The majority of cases completely recover. In the case before us I should incline to make a favorable prognosis, but I think electro-therapy (galvanism) is indicated in the case.

Dr. Bullock: In the character of cases referred to by Dr. Anderson my experience is that they all make a complete recovery inside of a month's time.

The essay was read by Dr. W. O. Roberts; subject, Laparotomy for relief of Intussusception, with Report of a Case occurring in a child aged nine months. [See page 11.]

DISCUSSION.

Dr. Anderson: Dr. Roberts has reported the case so fully that there is really nothing left to be said. I saw the patient one and one half hours before the operation. The child when first seen presented the unmistakable physiognomy of a serious illness, that was simply about all. It was being carried around the room upon its mother's arm, and would occasionally manifest evidence of abdominal pain, but was not screaming; except for the pinched appearance of the countenance I would scarcely have recognized that the child was more seriously ill than when suffering from an ordinary attack of colic. But the history of the case was important; the child had been ill four days under the care of a very excellent medical practitioner. He had suggested the day before that an operation be performed, and I am satisfied had made (although I do not know positively) a diagnosis of the condition. Diagnosis of the case was not difficult; the abdomen was not especially distended, in fact there was very little tympanites, but there was a sausage roll extending from the region of the sigmoid flexure upward for about four to five inches, and at variable intervals the child would manifest considerable discomfort and straining. Upon inspecting the rectum there was no difficulty in detecting the protruding mass just within the sphincter, which, as Dr. Roberts has said, came out, after the child was partly under the influence of the anesthetic, possibly two inches through the sphincter muscle. I had the child suspended by the legs and introduced my finger into the rectum; I could press up the invaginated portion, and at first pressed it so far that I hoped it had been returned; I could feel all the way around it, could dilate the gut to such extent as to make the diagnosis complete. It began at the cecum, passing through the colon, carrying with it the vermiform appendix and pulling down the smaller bowel as it descended through the large bowel and rectum to the anus, so that when it was relieved the last portion to come out was the cecum and the appendix. The cecum

and appendix were so enlarged and edematous that, had they been seen at first, there would have been a suspicion that the trouble was malignant in character. In other words, the morbid processes had extended to such an extent as to at first sight make the condition questionable.

With reference to the symptoms in these cases, I think the most important are straining, bloody dejections, and the absence of natural alvine evacuations. Ordinarily a tumor can be detected, such at least is my experience.

Dr. Cartledge: The only case of obstruction of the bowels that I have seen in the young child occurred in a little girl three years of age, and was volvulus. The only case of invagination I have seen in a surgical way, in the adult, occurred in a young man in Indiana about a year ago. I exhibited the specimen and reported the case at some length before this Society at the time. The invagination was at the ileo-cecal valve, and was about eight inches in extent. I resected the invaginated mass and made an end-to-end anastomosis, but necrosis and gangrene had taken place at the time of the operation, and the patient died three hours afterward.

Dr. Vance: I have never performed a laparotomy for intussusception, although I have seen several cases in which operation has been advised by others. I was recently called to see a child five months old reported to be suffering from invagination; I did not think operation advisable in the condition in which I found the child. The child died the day following. It is a wonder to me that invagination does not occur oftener, when we consider the tremendous suction power of the intestine. I have demonstrated this a great many times in operating upon dogs in endeavoring to make an end-to-end anastomosis. In approximating the afferent and efferent ends, the afferent would sometimes be sucked into the lower end, requiring considerable force to bring it back by the suture attached. I can understand readily how, when invagination starts, it would be carried right along by the sucking power of the intestine, the bowel above contracting and the muscular coat relaxing below forcing the intussusception downward very rapidly. In making an end-to-end anastomosis upon dogs I have often inserted my finger into the end of the lower portion of the intestine, and have found the suction and contraction so great as to make it perceptibly painful.

My experience is that babies, particularly, stand abdominal surgery very badly. I think the percentage of deaths would be more than double as compared with people who are older.

Dr. C. Skinner: I do not think all cases of appendicitis should be condemned to the knife, but do believe that all cases of intussusception belong to the surgeon.

Dr. Cottell: As I stated before a recent meeting of this Society, in discussing the question of appendicitis, the only case of intestinal obstruction (which was probably appendicitis but never made out) that I had seen which proved fatal occurred in the person of a child two years of age. We had the counsel of several eminent physicians and at least one eminent surgeon. The case was decided non-operable, the opinion being based upon the extremely tender age of the patient. I am satisfied, however, that a case in the hands of Prof. Anderson or Prof. Roberts would get all the chances of life that science could give it. I doubt if operation on any patient of such a tender age could be done with any reasonable hope of success.

Dr. J. A. Larrabee: It has been my fortune, or misfortune I take it, to have seen quite a large number of cases of intussusception. In looking back over my practice I can recall by name thirteen cases, twelve deaths, and one attempt at recovery. One of them came very near being a repetition of the very strange case referred to by Dr. Roberts to-night. A negro child that lived three weeks after sloughing of the intestine then died of perforation.

One point mentioned by Dr. Anderson in regard to these cases has been borne out by my experience, namely, the diagnosis is not as difficult as it might at first present. It is a little strange that earlier diagnosis is not arrived at when we take into consideration the facts already recited to-night. The history of these cases is that they are always of sudden occurrence; next the peculiar facial expression (Dr. Anderson has alluded to that), and I consider it one of the best points made in connection with the subject; there is not as much pain as is manifest in ordinary colic, but there is never a case without that peculiarity of expression which he has so correctly described. Again, I have never seen a case in which I was not able to make out a sausage-like tumor, except one. This occurred in a child suffering with an attack of varicella; intussusception came on without any cause, and like most such cases occurred suddenly at or immediately after straining at stool.

Dr. Vance has brought up a very significant point in this connection, viz., the suction of the intestine; when the intussusception once gets started it is carried on by this suction. Most of the cases I have seen have occurred immediately after efforts at stool. As I have already

stated, the diagnosis in my experience has been comparatively easy. I have never made more than two visits before satisfying myself as to the diagnosis. As Dr. Skinner has very correctly said, these cases are strictly surgical just as soon as they are diagnosticated, and with the power of making early diagnosis, with the facts against its being any thing else, either in the very young or the very old, I think the surgeon ought to be employed very early. I am a little surprised to hear Dr. Vance say that babies stand abdominal surgery so badly; I did not know that the operation was attended with such fatal results. I think the hope we have for relief by means of surgery is greater than by medical treatment; in my experience five days was the limit of life in these cases treated medically.

Dr. W. L. Rodman: I think the relative frequency of intussusception in children is clearly due mostly to anatomical reasons; due to the same cause which makes hernia so very common in young children. In early childhood the mesentery is nearly twice as long relatively as it is in the adult; this same mesentery becomes again elongated in older subjects. This to my mind explains the comparative frequency of intussusception and hernia in the young and in advanced age.

I fully agree with the position taken by Dr. Roberts as to the treatment. I feel that the importance of surgery in these cases can not be overestimated. While enemata may relieve a few cases in the very early stage of the trouble, and I think it should be always tried, just as taxis should always be tried in early strangulated hernia, I am satisfied that it should be tried no longer than taxis in hernia, and should the enemata fail to relieve the case very promptly I am thoroughly satisfied that the case demands early laparotomy. I therefore agree with the essayist that most of these cases call for a laparotomy, though they should certainly be treated medically at first. I hardly believe that the mortality is as great as statistics would make it appear. If the cases could be seen and operated on as early, for instance, as in strangulated hernia, I think the results would be very much better than they now seem to be. Certainly nature will do less for these cases than obtains in strangulated hernia, therefore early laparotomy for relief of the intussusception is demanded, and when the operation is done early in the attack I believe results will be more favorable.

Dr. Rodman (*Tumor of the Mammary Gland; Operation*): This specimen is the left mammary gland removed from a young woman,

married, twenty-seven years of age, kindly referred to me by Dr. Goslee, of Carrollton, Ky. She gave the history of having borne one child, aged three years, which was nursed for eighteen months. Shortly before Christmas last she noticed a small, hard lump about two inches above the left nipple. It was painful from the first, but grew more so gradually. Her general health I may say was not good, and an examination of her urine showed quite a perceptible amount of albumen. This made me hesitate as to whether or not I should remove the tumor, but on account of the fact that it was causing her considerable pain, and the mental distress being very great on account of the presence of the growth, I thought it wise to remove the gland. I did so one week ago last Wednesday, removing the entire organ, as I believe that to be the only treatment for any form of neoplasm of the breast, whether benign or malignant. I may say that I thought before the operation that this tumor was probably benign, notwithstanding the fact that she had complained of considerable pain. It has not yet been microscopically examined, but this will be done in the course of the next few days, and I will make a further report. I take it to be a fibroma. Fibromas of the mammary gland are sometimes attended with pain, just as they are in other situations. The axilla was not invaded, as I thought the growth was benign. The mammary gland was removed in its entirety, an elliptical incision eleven or twelve inches long being made. In changing the dressings yesterday I found that the wound from end to end had healed completely without a single drop of pus. I gave chloroform and administered a very small quantity of it, removing the breast very rapidly so as not to damage the kidneys more than they already were.

DISCUSSION.

Dr. Cottell: Cases of neoplasm of the breast are always interesting to me, because of the fact that the first case I ever saw (which occurred fifteen years ago in the practice of Dr. E. R. Palmer, in the person of a darky girl,) was one in which both breasts enormously enlarged. Under treatment, non-surgical, those breasts were soon reduced to the normal condition. I remember the case very distinctly, and know the woman to-day, and she has raised quite a family of children. The condition was always a mystery to me. The mammary glands are normal to-day. Of course we may have any sort of neoplasm of the breast, sarcoma, carcinoma, epithelioma, endothelioma, etc., and we may have fibroma, adenoma, simple inflammation, and hyperplasia. Not a few cases of

mammary tumor which are condemned to the surgeon's knife I am satisfied are simply the result of an inflammatory action following an abscess.

Perhaps the worst case of neoplasm of the breast I ever saw, progressing rapidly and proving to be malignant, was under the microscope purely an adenoma; under the most careful examination it was impossible to make out any species of cancer.

While we are on the subject of carcinoma, etc., I recall some statements I made about seventeen years ago, which will bear a repetition: When you come to the question of cancer you are never sure that the tumor you are dealing with is malignant or non-malignant in character until you can demonstrate infiltration into the surrounding structures. For instance, you take a pure epithelioma beginning in the rectum, or a cancer of the bowel, and it is to all intents and purposes a normal structure until it has broken loose and begins to infiltrate into the surrounding structures. It is a common thing, in demonstrating pure epithelioma, to show students a normal section of the rectum, then afterward show them what is called cylindrical epithelioma, and no distinction can be made until the muscular coat of the bowel, the peritoneum, or surrounding organs have been invaded by the disease.

Dr. Cottell reported the following: A boy aged sixteen years, in climbing a ladder, at the same time carrying a bag in a difficult position, discovered when he came down that he was weak and out of fix. This happened a week ago. He went into the house and told his mother that something had happened to him; that he had hurt himself in some way. She told him to go up stairs and go to bed; that she thought he would be all right shortly. He found it very difficult to get up stairs. In a few hours he came down crawling on his hands and knees. The condition of the boy is peculiar; he has complete paralysis of the left leg, involving the muscles of the hip, muscles of the back below a certain line in the dorsal region, with incontinence of urine. The right limb is in perfect condition. In the left, under electricity, the reaction of degeneration is not marked. I report the case because I want some light thrown upon it if possible. I am of the opinion that it is spinal hemorrhage; it is certainly peculiar that it should have so affected the spinal cord. The boy's temperature and pulse are normal. There are no symptoms of any kind except complete loss of both motion and sensation in the left leg, and incontinence of urine. The patient was referred

to me by a physician in the country. I suggested that the case be put upon iodide of potassium and ergot for two weeks, with instructions that the result be reported to me at that time. I take it to be a case of limited spinal hemorrhage. We all know very well that certain violent straining exercise, certain things which twist the spinal cord, may produce hemorrhage.

H. A. COTTELL, M. D., *Secretary.*

Stated Meeting, May 18, 1894, Dr. T. L. McDermott, President, in the chair.

Dr. A. M. Cartledge (Small Ovarian Cyst): This specimen is the smallest ovarian cyst that I have ever removed, being little larger than an ordinary orange. The patient was a very fleshy woman, aged thirty-eight years. There was history of pain in the ovarian region, disturbed menstruation, etc. The diagnosis was made by a general practitioner, and the patient sent to me for operation. The woman made an uneventful recovery, leaving the infirmary on the twenty-first day after the operation.

Specimen No. 2. (Cancer of the Pylorus.) This specimen is a cancerous pylorus removed from a patient (Mr. C.), who was exhibited by Dr. Turner Anderson in January, 1894, before the Louisville Surgical Society. Several members of this Society, including myself, were present, and the case was discussed at length from a diagnostic standpoint. The history was that the patient had received an injury three years ago from a severe blow by a drunken man in the left side of the abdomen. At the time he was presented before the Society there was a well-defined movable tumor above and a little to the right of the umbilicus.

On February 2, 1894, an exploratory incision was made directly over the tumor, which was found to be a cancer of the pylorus. As an evidence of complete stenosis, all food had been rejected for more than ten days before the operation. The stomach was opened and the pylorus dilated by Loreta's method. In addition to this a quantity of the cancerous mass was curetted away. This operation was not of my own selection, but was probably the least dangerous of any that could be done, and we did not have the patient's permission before anesthesia to do more than a simple exploration. The patient made a rapid recovery, and left the infirmary on the sixteenth day. For four or five weeks he

gained flesh and strength and retained all nourishment, which consisted of liquid food and broths, very well. After this period evidences of returning contraction took place, and the original vomiting of food returned.

On March 26, 1894, at the earnest solicitation of the patient, who was now nearly exhausted from starvation, the radical operation of pylorotomy, or excision of the cancerous mass, was undertaken. The patient was on the table an hour and twenty minutes. He was very anemic, there was no fat, and he was generally in a bad condition for operation. Death occurred at the end of the third day, evidently from starvation. I believe if the second operation had been performed at first, he would have had a good chance of recovery, as he was a most excellent surgical subject.

In cases of this character, if operation is performed early, I believe complete excision of the cancerous mass a better procedure than gastro-enterostomy. The trouble in this case was more gastric than pyloric. Drs. Anderson and Vance were the only physicians who made any thing like a correct diagnosis of the case prior to the exploratory incision.

It is a little remarkable how low the stomach may be dragged down by a malignant growth, and how deceptive such mobility is. I recently saw a case of cancer of the pylorus where that portion of the stomach extended down in the left iliac fossa. The diagnosis was confirmed by an exploratory incision. The abdomen was closed, and the lady made an uninterrupted recovery from the exploratory section.

Specimen No. 3. (Vaginal Hysterectomy.) This specimen is a uterus removed by vaginal hysterectomy for procidentia which presented a growth that gave every evidence of being malignant in character. In my experience a uterus which is prolapsed is more difficult to remove by vaginal hysterectomy than when occupying the normal situation. The structures and broad ligaments become inverted like a closed umbrella, and the danger of wounding the bladder structures is much greater than by the usual operation. Ligatures were used in this case, no clamps being employed.

Reviews and Bibliography.

Lectures on Auto-Intoxication in Disease, or Self-Poisoning of the Individual.

By CH. BOUCHARD, Professor of Pathology and Therapeutics, Member of the Academy of Medicine, and Physician to the Hospitals, Paris. Translated by THOMAS OLIVER, M. A., M. D., F.R.C.P., Professor of Physiology, University of Dublin. In one octavo volume. 302 pp. Extra cloth, \$1.75 net. Philadelphia: The F. A. Davis Company, Publishers. 1894.

In this work we have a very interesting exposition of all the most important discoveries in regard to the evil influences on the system of various decomposition products, whether derived from the tissues of the body or from animal and vegetable substances ingested as food.

Of the great range of subjects discussed an idea may be formed when it is stated that, of the three hundred and two pages, fourteen are embraced in the index. The book is the terse presentation of the results of an immense amount of skilled investigation and lends an added interest in the mind of the thoughtful student, to nearly every department of the practice of medicine, and can not but add greatly to intelligent procedure.

As regards the treatment of diseases by internal antiseptics the author speaks hopefully, but not by any means confidently as regards measures already in use. He thinks we may in the course of time find means of destroying the microbe which will not hurt the cell. A reference made to poisoning by decaying meats, especially as happening at wedding feasts, ought to be of particular interest to our readers who took part in the reputed poisoning cases that occurred near this city a few years ago. He shows how poisoning in these cases comes on only several hours after the ingestion of the tainted food, a fact which in a large number of cases happening together would absolutely exclude the idea of mineral poisons.

The translation is not quite so smooth as it might be, but is otherwise excellent. The work commends itself to every thoughtful student.

D. T. S.

Transactions of the Southern Surgical and Gynecological Association. Volume VI.

Sixth session, held at New Orleans, La., November 14, 15, and 16, 1893. 392 pp. Published by the Association. 1894.

This, the sixth volume of the proceedings of the Southern Surgical and Gynecological Association, gives evidence of a busy session and the usual excellent class of work.

If one thing is to be noted in the drift of discussion as differing from that of former meetings, it is the growth of a healthy conservatism. This is especially marked in the views expressed by Dr. Howard Kelley in the treatment of diseases of the appendages, the secret of whose value depends largely on the fact that his ability, his honesty, and his truthfulness have

the highest recognition among his neighbors, among those who know him best. The discussion was brought out by a thoughtful paper by Dr. Kollock, of South Carolina.

In the discussion of appendicitis inaugurated by a paper by Dr. Cartledge of this city, and very favorably received, a majority of the surgeons favored the following of diagnosis by operation, but others, among them the distinguished Hunter McGuire, advocated conservatism. As stated by Dr. Ensley, of Alabama, the discussion brought out statements that ought to be harmonized.

Dr. McGuire and several others made the statement that in one third of autopsies adhesions are found about the appendix, indicating that the individual had some time in life suffered from appendicitis. If, then, operation must follow diagnosis, it is only the ignorance of surgeons, only the inability to make a diagnosis that prevents laparotomy on one third of the human race. Most of us would fain hope that at least in our day diagnosis along this line will not be perfected.

D. T. S.

Medical Jurisprudence, Forensic Medicine, and Toxicology. By R. A. WITTHAUS, A. M., M. D., Professor of Chemistry, Physics, and Hygiene in the University of the City of New York, etc., and TRACY C. BECKER, A. B., LL.B., Counsellor at Law, Professor of Criminal Law and Medical Jurisprudence in the University of Buffalo. With the collaboration of August Becker, Esq., Chas. A. Boston, Esq., W. N. Bullard, M. D., J. Clifton Edgar, M. D., D. S. Lamb, M. D., W. B. Outten, M. D., Hon. William A. Pasto, M. D., Edward S. Wood, M. D., E. N. Stoddard, M. D., Hon. Goodwin Brown, J. C. Cameron, M. D., E. D. Fisher, M. D., H. P. Loomis, M. D., J. H. Woodward, M. D., F. P. Vandenburg, M. D., Geo. Woolsey, M. D. Volume I. 845 pp. New York: William Wood & Company. 1894.

It is meet that while additions so tremendous are being made to other departments of medical literature a fuller exposition than any yet produced should be given to medical jurisprudence. We had already some very able works in English, but even the best of them are too brief for a full exposition of facts and principles of the science.

In the work before us we have a veritable encyclopedia on the subject, and what is better still, it is eminently American in its application, as it is written by American authors.

The names of both authors and collaborators give ample warrant that all the volumes will be models of the highest order of finished work, both as respects scientific fullness and accuracy and literary style.

Every teacher of legal medicine must have this work, and every cultivated physician will find its reading both profitable and most entertaining.

D. T. S.

Essentials of Practice of Pharmacy. Arranged in the Form of Questions and Answers. Prepared especially for Pharmaceutical Students. Second edition, revised. By LUCIUS E. SAYRE, Ph. G., of the University of Kansas. 200 pp. Price, \$1. Philadelphia: W. B. Saunders. 1894.

This work is gotten up in the usual beautiful and taking style of the Saunder's Quiz Compends, and is especially attractive in this revised form.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Visit to the City Dust Depot; Cremation Increasing; A Biography of Sir Andrew Clark; Antiseptics in Eczema; New Buildings at St. Thomas's; A Practical Magistrate; The Industrial Colony for Epileptics; Interesting Case at Birmingham; Illness of Sir George Paget; Dr. Laurie on Chloroform, etc.

The Japanese Ambassador and suite have recently paid a visit to Letts's Wharf, the City Dust Depot, for the purpose of inspecting the methods adopted by the Commissioners of Sewers for getting rid of the refuse of the city of London. During the visit it was explained that during the past year 28,699 loads of street sweepings and 42,572 of dust and trade refuse were delivered at the wharf, and 25,000 loads were burnt in the destructors, erected some years since at the cost of £12,000. The chairman of the commissioners said that the only advantage that could be claimed for the old system was that marketable commodities were carefully eliminated from worthless rubbish and sold for no considerable sums. Under this head the revenue for the past year included such items as paper, £590; rags, £47; bottles, £107; string, £177; corks and wax, £58, and iron, £62, the total amounting to no less than £2,421.

The practice of cremation gains ground steadily. It so happens that none of the Burial acts refer to cremation: on this account Dr. Tristram has had a novel question to decide in the Consistory Court. The widow of a gentleman whose body had been burnt applied for a faculty to deposit the urn containing his ashes in the wall of St. Saviour's Church, Pimlico, or else on a projection near it. Dr. Tristram showed good reason for denying this request. It might be necessary to take down the wall, and in that case serious difficulties might arise. He granted permission, however, to bury the urn beneath the place desired, unless the Home Office saw cause to object on sanitary grounds. But nothing was said about the alternative of placing the urn upon not in the wall.

With the sanction and approval of Lady Clark a biography of the late Sir Andrew Clark is in course of preparation, to which an introduction is promised by Mr. Gladstone. Those who may possess letters or other communications from the late physician would confer a favor if they would lend the same with a view to publication. Documents should be sent to Lady Clark, Camfield, Herts, who will immediately copy and return them.

A well-known specialist, in a recent paper upon the principles of antiseptics in the treatment of eczema, holds that it is well to begin by producing

thorough disinfection of the affected surfaces. Then, after removal of crusts with soap and water, the part should be washed with corrosive sublimate not stronger than 1 to 3,000 or 1 to 5,000. This solution should be used afterward morning and night by means of a pad of absorbent cotton, and if possible this pad, well soaked in the solution, is to be kept applied to the diseased surfaces from half to one hour during each washing. The parts are then dried, and a ten-per-cent boracic vaseline ointment is rubbed into the skin and covered with a cotton bandage. As a rule it has been found that suppuration ceases in a few days. In milder cases two or three per cent boric-acid lotion takes the place of the corrosive sublimate. In acute inflammatory cases, especially where the legs are involved, with or without ulcers, two to four parts of acetate of lead are added to each 4,000 parts of boric-acid solution, and compresses soaked with this mixture are constantly applied for several days. Even in the dry forms of eczema these wet applications have been found of service.

A British committee, of which Sir Douglas Galten is the chairman, and Professor W. H. Corfield, M. D., is the treasurer, has been formed to further the interests in this country of the Eighth International Congress of Hygiene and Demography which is to be held in Buda-Pest on September 1st to 8th, this year.

During the month the new buildings attached to St. Thomas's Hospital have been opened by the Duke of Connaught. The addition consists of two new blocks, built of brick faced with stone, which not only offer new accommodations to departments that have risen in importance or been added to the curriculum, but will so relieve the main block as to allow for extension and re-arrangement of the pre-existing laboratories. Thus the chemical, the anatomical, the physiological, the biological, the operative surgery, and the pathological departments, together with the physical laboratory and the museum, have been so added to, altered, and rearranged that increased facilities are given for practical and routine work, as well as for study and research, and the arrangements are now as complete as present or future contingencies can demand. Beyond all this the extension provides, in a separate building, abutting on the northeast corner of the older structure, a location for the Student's Club, the accommodation including a dining-room, a smoking-room, supplied with newspapers and magazines, a cloak-room, lavatory, and bath rooms. The new buildings are fire proof, and lit by electricity, and finally command a charming prospect, sharing in the free outlook toward the river and Lambeth Palace, with which, so far as the hospital is concerned, they in no way interfere.

A rather amusing incident occurred at the Faversham Police Court. A stranger pleaded guilty to a charge of refusing to perform his task of work while an inmate of the Union Workhouse, but he told a pathetic story of a weak heart "which wouldn't beat" occasionally. The magistrate happened to be a medical man. He heard the man's story, and then left his seat and advanced to the prisoner and felt his pulse. Next he caused him to bare

his chest, and then and there applied his stethoscope. There was nothing at all wrong with his heart. The prisoner protested, but all the reply he got from the expert magistrate was, "You will have seven days' hard labor."

It seems from the statistics published by the Registrar General that during the ten years, 1871-81, that suicide was most common among costermongers, whose average was just three times that of the rest of the population, then in a descending succession came commercial travelers, publicans, bakers, and butchers.

The National Society for the Employment of Epileptics will shortly open the first Industrial Colony for Epileptics established in this country. The undertaking is on a small scale, a temporary establishment having been fitted up for the reception of eighteen inmates. The site consists of soil suitable for market gardening, which, combined with dairy work, is to be the first industry. It is hoped that in the course of time the undertaking will become a national institution. The committee of management includes Sir I. Crichton Browne and Dr. Ferrier, who have made epilepsy a special study.

The following case has been under treatment at the Women's Hospital, Birmingham. The patient, a woman aged twenty years, complained of a painful lump in the groin. There was no development of hair on face or pubes, and she had never menstruated. The breasts were undeveloped. The external genitals were normal; the vagina, however, was a *cul-de-sac*, three quarters of an inch in length, admitting easily the tip of the forefinger. Upon passing a sound into the bladder and feeling it *per rectum*, no uterus or prostate could be discovered. The lump in the groin was in the left inguinal canal, about the size of a pigeon's egg, having no impulse on coughing, and could not be reduced into the abdomen. An incision was made over it, a serous sac not communicating with the peritoneal cavity was opened, and a well-formed testicle was exposed; it was freed from its adhesions, the cord ligatured, and the body removed. No trace of a uterus could be discovered upon exploration. The pillars of the ring were sutured with silk-worm gut. The girl made a good recovery.

The next annual meeting of the British Association promises to be a great success. It is to be held at Oxford in August next, and a large number of persons have intimated their intention of being present.

Sir George Paget, the eminent surgeon, of Cambridge University, is stated to have been seized suddenly with illness, and is in a very critical state. He was to have distributed the medals and prizes to the successful students at Guy's Hospital in July.

Surgeon Colonel Laurie is going to demonstrate at an extra meeting of the Royal Medical and Chirurgical Society, by tracings and otherwise, that chloroform has no effect upon the heart, and that the examination of the pulse is useless in chloroform anesthesia.

LONDON, June, 1894.

THE AMERICAN PRACTITIONER AND NEWS.

"NEC TENUI PENNÂ."

Vol. 18.

SATURDAY, JULY 14, 1894.

No. 1.

D. W. YANDELL, M. D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

A Journal of Medicine and Surgery, published every other Saturday. Price, \$3 per year, postage paid.

This journal is devoted solely to the advancement of medical science and the promotion of the interests of the whole profession. Essays, reports of cases, and correspondence upon subjects of professional interest are solicited. The editors are not responsible for the views of contributors.

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JOHN P. MORTON & COMPANY, Louisville, Ky.

POLITICS OF THE A. M. A.

In our last issue, commenting upon the address of President Hibberd at the recent meeting of the American Medical Association, the editor of this journal said: "The statement current for some years past that the specialists have captured the Association and are running it on a political basis for personal ends is met by suggestions which, if carried out, would make the Association fully representative of the general medicine and surgery of the land." Further, the contest over the revision of the Constitution and Code of Ethics was mentioned, and the suppression of all measures of so-called reform in these directions was duly noted.

It would seem, however, that nothing was done looking to the adoption of the President's suggestions, and that the revision of the Code is a question too vexed for legislation if not too obscure for the understanding of the average delegate to the national society.

As to the first question, it looks as if it had found full settlement in the fact that every specialty in American medicine, except perhaps chiropody, now has its own association. And as each of these societies affords its members enough of offices, honors, and advertisement to satisfy the ambition and greed of the average specialist, the general practitioners are practically in possession of the national assembly by

quit-claim deed. This statement gets accentuation in the fact that no specialist has been made president of the Association in many years. A specialist attempts now and then to capture the office, but in the end some all-around man secures the place.

If, then, the Society belongs to the general practitioner in medicine and surgery (due courtesy and privilege to the specialist being extended), there ought to be such revision of the Constitution and modification of the Code as will harmonize all elements and make the Association representative of American medicine in the fullest sense. The following, from the correspondent of the *Boston Medical and Surgical Journal*, gives a faithful picture of the situation. It is for the most part to the credit of all concerned :

Whatever may be said to the contrary, it is quite plain that the revisers of the Constitution have in mind a concentration of power in the hands of a few, with every indication that this control would be self-perpetuating. Without for an instant impugning their motives, it must be plain to any thinking man that such a result will inevitably be reached. The president is an outspoken revisionist ; but it is difficult to realize the soundness of his argument, that, from the mode of its election, the business committee must be representative. It is quite true that it is representative of the profession, in the sense that its components are representative men or leaders in the profession. It is also true that by virtue of that fact they are leaders in different branches, or specialists, and equally true that there never will be a general practitioner among their number, and that he would find no place there. The business committee has charge of the scientific work of the meetings ; it fulfills its function admirably, but it should not be embarrassed by outside matters. These are the weak points of the proposed Constitution, and they found no favor with the western men.

It was sought to remedy this defect by two propositions : First, that there should be added to the business committee, for the purposes of nomination, a representative from each State and Territory. This, while making a very unwieldy committee, would leave things just where they were, as the voting power by numerical superiority would still rest with the business committee. The second proposition would in a few years decide the whole matter in favor of the revisionists. This is to enable every man who has attended twice as a delegate to have the right to vote in future. The inevitable result of this would be to provide a greatly increasing majority of the voters in the Eastern and Central States, and to leave the West hopelessly out in the cold. It is therefore hardly to be wondered that neither change found much favor with the western men who were averse to committing suicide on the question of representation. Whatever may be the defects of the Constitution proposed by the minority, it was certainly more in conso-

nance with the feelings of the Pacific Coast States, and it is beyond question that it could have been adopted at this meeting. The management of the subject was, however, bad; the supporters of the minority were unaware of their strength or feared to trust themselves, and the tactics of the opposition were certainly superior. As a result, the matter has been deferred for two years, to come up anew, when decisive action would have given the Association the benefit of a trial of the new constitution.

On the question of a change in the Code opinions were even more radically divided. The supporters of a new Code in the great West, and particularly on the Pacific Coast, are few in number. The great mass of the profession desire no change, and are perfectly satisfied with the Code as it is. It can hardly be regarded as a matter of sentiment, but rather as being due to a clearer conception of the honesty and fairness as well as of the ethics of the Code. That no change could be effected at the San Francisco meeting was a foregone conclusion, when the Medical Society of the State of California expressed itself as opposed to any change, and instructed its delegates to so record their votes. Several of the local societies had also recorded their vote as opposed to change, and those which had not taken formal action were none the less opposed to iconoclastic measures.

Whatever misconception may exist in the Eastern States on the question of consultations, there is certainly none in the far West. An irregular practitioner or sectarian physician is recognized as such, his honesty and conscientious practice duly respected, or his dishonest methods properly appreciated. Hence there is no association, except by a very few black sheep, nor has the leaven of commercial greed penetrated very deeply. Outside the question of consultation there is no point except that concerning the holding of patents by physicians on which there could be much controversy. While there are many who feel that a physician should be allowed, if he so desire, to obtain a patent, the majority certainly believe that the present course is the most respectable and professional.

MORTALITY OF MEASLES.—In its issue of May 26th the London Lancet says editorially: "It is difficult for any one interested in the progress of preventive medicine to note without a little disappointment the diverse views which obtain among the several sanitary authorities who have added measles to the list of notifiable diseases as to the value of the proceeding. A disease which in this country exacts a death-toll of from 6,000 to 14,000 persons annually, and an uncertain but far from insignificant amount of partial disablement for life, can not be a matter of indifference to us; more especially so when we have regard to the fact, as indicated by the rise of mortality during the last decade, that the disease may possibly be undergoing intensification of type."

Notes and Queries.

A CASE OF PARALYSIS FOLLOWING DIPHThERIA OF THE GENITALS ONLY.—An unusually well developed and nourished girl four years of age was admitted to the Northwestern Fever Hospital on October 28, 1893. Her condition was as follows: The skin of the groins, labia, and vulva was excoriated, owing to a very offensive, copious vaginal discharge. On separating the genitals the whole of the parts were found to be extremely swollen and covered with a membranous exudation of the true diphtheritic character, which had also crept along the vaginal cavity as far as could be seen. No urine, it was reported, had been passed for two days (?), and the bladder dullness extended a considerable distance above the pubes. As exquisite tenderness was present, preventing any attempt at instrumental interference, the patient was put under chloroform and a catheter passed. Some urine escaped while the patient was under the anesthetic, and a little was drawn off, showing a trace of albumen. The temperature was 96° F. only, the countenance very pallid, and the pulse feeble and slow. The vulvitis, it was stated, had existed for a fortnight, but the throat was not, nor had been, previously affected in the slightest degree by membrane. By the frequent application of a perchloride of mercury solution, combined with the administration of iron and brandy and a generous diet, steady improvement ensued, so that by the 19th of the following month the parts were nearly healed and the vaginal discharge had ceased; the albumen, however, continued, and the pulse and temperature kept subnormal. On the 23d marked strabismus was observed, also palate paralysis, with regurgitation of fluids through the nostrils and an irritating noiseless cough. By the 26th the muscles of visual accommodation were impaired, the albumen persisting, slight vaginal discharge returned, but the genitals were quite free from membranous exudation and presented a perfectly healthy appearance. On the 30th the paralysis was more universal, the typical apathetic look and bearing being very pronounced. On December 5th there was great difficulty in swallowing, the muscles of deglutition being now involved in the general paresis, with an almost constant impotent cough. Much headache was complained of, there was rapidity of pulse and more albumen, but less secretion of urine. Feeding by tube was resorted to, but death took place next day, due apparently to the direct toxic action of the diphtheritic poison on the bulbar centers, which is unfortunately so apt to occur with those children who become apathetic, have a nasal quality of voice, irregular sighing respiration, loose, almost noiseless, cough, with mucous accumulation and a rapid pulse. A good deal of diphtheria in all its forms is seen in the Northwestern Fever Hospital, and the cases necessarily assume various types and select different

localities for the exudative deposit. Examples of all kinds have come under view on different occasions, but of two thousand seven hundred and thirty-three patients admitted during the past six years about six cases only have been genital. Its occurrence must, consequently, be by no means frequent. The chief point in view in recording the above case is to qualify a statement recently made, viz., that diphtheritic paralysis does not follow except when the fauces have been previously affected.—*Dr. W. Gayton, London Lancet.*

NUCLEO-ALBUMINURIA.—Pichler and Vogt (*Centralbl. f. inn. Med.*, April 28, 1894.) observe that a more exact examination has shown that proteid substances in the urine do not only consist of serum, albumen, and globulin; nucleo-albumen is characterized by its solubility in acetic acid, its precipitation by magnesian sulphate, and by the separation on boiling with dilute mineral acids with no reducing substance. It must be distinguished from globulin and mucin. Nucleo-albuminuria seems to appear when any damage is done to tissue cells, or more seldom when secretions holding nucleo-albumen, such as bile, get into the blood. In experiments on dogs, the authors show that the injection of casein produces nucleo-albuminuria. The simplest way of damaging protoplasm is to limit the supply of oxygen, and in these cases lactic acid, etc., appears in the urine. The authors demonstrate by their experiments on animals that temporary obstruction of the femoral artery will give rise to nucleo-albuminuria. In four experiments on dogs, in which the renal artery was temporarily obstructed, nucleo-albumen appeared. Serum-albumen was absent in one case, and only present for a short time in the others. The only changes found in the kidney were fat in the cells, and some alteration in the protoplasm belonging to the cells of the convoluted tubes. Experiments thus show that the renal tissue may be the source of nucleo-albuminuria, and this source must be excluded before others are thought of. The so-called cyclical albuminuria is often nucleo-albuminuria. In some cases of temporary compression of the chest or limiting the blood supply to a limb in young people albuminuria may be produced, but nucleo-albumen is more the exception here than the rule. These researches show further reasons for separating nucleo-albumen from ordinary albumen. The authors' investigations in the case of disease yielded similar results to those of Obermayer.—*British Medical Journal.*

LIGHTNING STROKE.—"Ball lightning," the *fulmen globulare* of the older meteorologists, is the most dangerous and destructive of the forms which lightning is known to assume. Fortunately, however, it is the rarest. A narrow escape from death by its stroke occurred lately in the person of a distinguished surgeon of the Belgian school, Dr. L. Dandois, Professor of Surgery in the University of Louvain, who had gone to the neighboring town of Linden to visit a patient, and on his return, having alighted from the train to continue his homeward journey by road, was overtaken by a heavy thunder-storm. The sky became as dark as at midnight, so as to

make it difficult for him to avoid the telegraph-poles standing at intervals along his path. In a few minutes a fire-ball, as he described it, descended on him, its stroke hurling him off the road, across the ditch that ran parallel to it, and landing him in the adjacent field. He was holding a large umbrella at the time, holding it with both hands by its wooden stick, which was of uncommon thickness. On coming to himself after the shock he found the umbrella cover completely burnt off its steel framework, the steel itself being twisted into every sort of shape. The wooden handle had no doubt saved his life; had it been of metal Dr. Dandois is convinced that he must have been killed instantaneously. As it was, fully ten minutes elapsed before he recovered the use of his arms and legs, benumbed as they were with the shock. Ultimately he was able to resume his walk homeward. *London Lancet.*

ELIMINATION OF PHOSPHATES IN THE URINE IN MALARIAL FEVER.—Rem-Picci and Bernasconi (*Il Policlinico*, No. 8, 1894,) find there is often in malarial infection an increase in the elimination of phosphoric acid during the first twenty-four hours. This they attribute to the increased ingestion of food which is so commonly desired at the onset of the illness. Almost as soon as the temperature has risen distinctly above the normal there is a very notable diminution in the amount of phosphoric acid eliminated, in spite of the fact that the amount of urine passed is generally much increased. This diminution is independent of the amount of food taken, and occurs even if at the beginning of the access a large dose of phosphate of sodium is taken, or the same drug if given by subcutaneous injection. The diminution is not proportional to the degree or duration of the fever. Immediately after the access of fever ceases there is a remarkable "unloading" of phosphoric acid, which continues for several hours, and generally compensates for the retention observed during the febrile paroxysm. If the access is cut short by quinine, phosphaturia is usually observed. In chronic malarial cachexia the elimination of phosphoric acid did not appear to be affected.—*British Medical Journal.*

THE GOLDEN WEDDING OF SIR JAMES PAGET.—Few events in the domestic history of the profession can excite more interest than the golden wedding-day of Sir James and Lady Paget, which was celebrated on Wednesday last. The General Medical Council that day, very happily, through its President, passed a resolution of congratulation, and in that way gave expression to a sentiment which will be universal throughout the profession in Europe and America. The life and character of Sir James Paget are a part of the property and history of the profession of this century. And it is a matter of the deepest satisfaction that he still enjoys the society of Lady Paget, who has so well accompanied and supported him for fifty years in his eventful and honored life. The public little knows how much its great men owe to the help of congenial partners. It only remains for us to express a wish for many happy years of usefulness for Sir James and Lady Paget. *London Lancet*, May 26, 1894.

Special Notices.

EXTRACT FROM AN ARTICLE IN THE "NEWS."—I saw not long since an article in the "News" asking for short articles on some of our new remedies. PHYTOLINE being one of them, I will give our experience with it as an anti-fat.

Patient, lady aged twenty-eight, fair complexion, has in past five years gained considerably more adipose than was convenient to carry about. Applied to us for help about the middle of December last. We gave her PHYTOLINE (Walker) in ten-drop doses, and wished for a report in two weeks. On returning reported no improvement. Remedy was continued. Has now taken about four weeks' treatment, and measures five inches less around the waist. States that she has felt no ill effects from the use of the remedy. Patient was sick with an old chronic trouble about ten days, during which time she did not use the remedy. One of our brother physicians lost twelve pounds in two weeks by using PHYTOLINE. Hoping to hear from others through the News regarding its use, so that we may learn in what cases it will give best results, we remain,

DRS. H. A. & C. H. BARBER, Hastings, Mich.

DR. W. A. JONES, of Malvern, Ark., under date of October 3, 1893, writes: "I have given PAPINE a thorough test, and like it much better than any other preparation that I have ever used of all the opiates. It never nauseates, either primarily or secondarily, and has given relief where all the other preparations of opium have failed. It acts well as a febrifuge.

I HAVE found Peacock's Bromides exceedingly efficacious in headache and cerebral congestion, more so by far than the ordinary bromides.

JAMES MACMUNN, L.R.C.P., L.R.C.S.,

Resident Medical Officer, Great Northern Hospital, London.

LONDON, ENGLAND, 39 Cecile Park, Crouch End.

"ROBINSON'S LIME JUICE AND PEPSIN" is an excellent remedy in the gastric derangements particularly prevalent at this season. It is superior as a digestive agent to many other similar goods. (See advertisement, this issue.) See remarks on their Arom. Fluid Pepsin also.

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THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNĀ.*"

VOL. XVIII.

LOUISVILLE, KY., JULY 28, 1894.

NO. 2.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

OBSTACLES TO BE MET IN ELEVATING THE STANDARD OF THE MEDICAL PROFESSION.*

BY J. N. M'CORMACK, M. D., LL. D.

How to admit to the ranks of the medical profession of this country in the future only those who are fairly competent, intellectually and morally, to meet the responsibilities which such admission imposes is probably one of the most serious questions confronting thoughtful members of the profession. Upon its proper solution depends not only the permanent place which ours is to occupy among the learned professions, but the well-being and lives of the citizens of every rank and condition. From the period of life where Tristram Shandy's biography begins to old age few of our people long escape such contact with the medical man as make health and comfort if not life itself dependent upon his knowledge and skill, and this too of a kind of which, in the very nature of the case, the layman is usually incompetent to judge.

It is by no means a new or a simple question. In older countries, and under more arbitrary forms of government, it has been practically settled by statutory safeguards placed at the portal of the profession, the entrance to student life, rigid inquiry being made into the educational and moral qualifications of each person desiring to begin the study of medicine, and this governmental supervision through professional lines is continued so long as he remains a physician.

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That the friends of medical reform may not be discouraged at the slow progress being made in this country, it may be well to say that the high standard attained in such countries has come, like human liberty itself, only after centuries of unceasing agitation and conflict. It is barely thirty years since the first bill was proposed to regulate the practice of medicine in Kentucky, while the first proposition of this character was made in England in 1422, seventy years before the discovery of America, and this did not receive the sanction of parliament until nearly a hundred years later. This act provides that "No one shall use the mysterie of fysyk unless he hath studied in some university, and is at least a bachelor in that science (the penalty being £10) and every woman who shall practice fysyk shall suffer the same penalty." Legislation kept fully abreast of the progress of the medical profession, as will probably be the case in every country, but it was only in 1858 that the profession of Great Britain secured the enactment of the present comprehensive laws, which, though not so far-reaching as the profession there demands, can not but challenge the admiration of a physician of a free country like ours, where a beautiful diploma from a legally chartered institution may still be obtained, after ten days' study, for the sum of fifty dollars. Such institutions now exist in at least three States adjoining ours, and until six years ago such a diploma conferred upon the holder a *prima facie* right to practice medicine in Kentucky, and made him the peer before the law of the most learned. The history of England upon this movement is substantially the history of Germany, France, and the other highly civilized continental countries, and must be that of our own country if the rank and file of the profession is to be elevated to a fair standard of excellence. Success will be achieved only by a constant warfare in the profession of intelligence and skill against ignorance and incapacity, between the scientific professional man and him who practices medicine only as a trade.

The first legislation had upon this subject in this country was in New York in 1787, followed by a similar law in Massachusetts in 1817. These laws were seemingly in advance of public and professional sentiment, as they were repealed in 1844 and 1838 respectively. With the organization of the American Medical Association in 1847, and the great stimulation of professional sentiment throughout the entire country incident thereto, interest in the subject of a higher medical education revived, and a long-continued and most commendable effort was made by its leading spirits, and in the various State societies, to bring

about a reform through the medical colleges themselves. The rapid growth of the country and consequent need for physicians about this period caused medical schools, many of them such only in name, to spring up like magic in every center of population, with such diversified interests and aims that any agreement between them which would serve the public or professional interest was found impracticable.

The earnestness of many of the leading educators of the country in this work was shown at a convention of delegates held at Cincinnati in May, 1867. Resolutions were passed recommending changes in the methods of study, and advising a four years' course instead of three. "These propositions," says Dr. H. A. Johnson, a distinguished delegate from Chicago, "no doubt faithfully represented the opinions of those teachers when at a distance from their institutions, but they had altogether a different set of ideas when the question was presented in its financial aspect at home." Nothing came of this meeting. Ten years afterward, at the meeting of the American Medical Association in Chicago, representatives from thirty-one medical colleges, of a hundred and forty-eight then existing in the country, formed the Association of American Medical Colleges, and adopted a constitution, by-laws, and articles of confederation. These articles prescribed that at and after the session of 1879-80 the regular session should not be less than twenty weeks, that the term of study should not be less than three years, and the number of sessions not less than two. In 1880 the Association increased its requirements to three sessions, and agreed upon preliminary examinations as a condition of admission after the session of 1882-83. This Association also went to pieces when the time approached for the increased requirements to go into operation.

These historical facts have been given somewhat in detail in order to show how barren of results had been the resolutions of societies and the efforts of leading medical teachers in bringing about any substantial reforms. At this time medicine had reached the low-water mark in this country. The desire for illicit gain, which became so marked a feature of mercantile and public life during and after the Civil War had infected our profession, and there soon developed a class of medical adventurers, usually carpet-baggers so far as Kentucky was concerned, I am proud to say, who, by dishonest and ignorant but widely advertised pretenses, not only brought odium on the profession, but became at once a drain upon the purses and a menace to the health of our people. Many of these men had diplomas obtained from fairly respectable schools, upon

a basis of four years' practice and attendance more or less upon one course of lectures. Fraudulent schools had sprung up in many sections, and both at home and abroad American medical diplomas became abundant and valueless. Of course the better schools and teachers continued to do excellent work, and were patronized by the class of students who desired to learn scientific medicine, but in many respects these were placed at a great disadvantage. As practically no evidence of qualification was required of physicians in any of the States, the educated physician often found himself at a disadvantage before the community in competition with his pretentious and unscrupulous neighbor whose education, such as it was, had cost him little time or money. The better colleges were placed at a similar disadvantage. If the illiterate and incompetent were refused matriculation or graduation, the rejected applicant could get a handsomer diploma for less money and in a shorter time from one of the lower grade, but still fairly respectable schools, or, failing in this, from one of the fraudulent institutions. Scores of the latter were found in this State when the new law went into operation in October last.

At this juncture, from 1880 to 1890, a new factor in the interest of higher medical education and honest and honorable methods of practice appeared. By a consensus of opinion, developed and directed by the American Medical Association and the various State societies, effective laws were passed in more than thirty States of the Union, and in all of the provinces of Canada. Statutes had existed in many of the States previously, but, as in our own State, they were uniformly weak and inoperative.

In October, 1880, the Illinois State Board of Health, under authority of a statute very similar to the one now in operation in this State, adopted its schedule of minimum requirements, to go into effect after the session of 1882-83. In adopting these requirements the Board simply put in force in Illinois what the best colleges and teachers had long and repeatedly urged as a necessity. Most of these schools gladly and at once fell into line, and, as a failure to conform to the requirements excluded the graduates of a college from that great State, and soon from other States which made similar requirements, and in effect blacklisted it before the medical world, the pressure brought to bear on other schools was very great. This Board also inaugurated a systematic and exhaustive investigation into the standing, equipment, and methods of every institution claiming to teach medicine in this country, and the resulting information was widely published.

The effect of this work was immediate and gratifying, as indicated in the announcements of the colleges, and affected every aspect of student life. It is true that in some instances the reform did not extend beyond the printed announcement that some poorly equipped but honestly managed schools could only comply by slowly advancing methods, but with the large majority the reform was immediate and promises to be lasting.

There have been 236 medical schools of all kinds chartered in the United States and Canada. Of these, 148 existed in 1880, 135 in this country and 13 in Canada. Of these, the number requiring certain educational qualifications before matriculation, in 1880, was 45; in 1886, 114; in 1894, 144. The number requiring attendance upon three or more courses of lectures before graduation at that time was 22; in 1890, 64; in 1894, 140. The average duration of the lecture course at that time was 23.5 weeks; now 111 colleges have a lecture term of six months or more.

Many of the best schools in the South suffered great hardships from these requirements, and in ways not easily understood in other sections. Often interrupted and impoverished by the Civil War, and mainly dependent upon a patronage poor in funds and educational advantages from the same cause, compliance with them was more difficult, though not less desired, than with those of more fortunate sections of the country.

While the time was propitious for this reform, much of its success was due to the personal work of Dr. John H. Rauch, the Executive Officer of the State Board of Health of Illinois. Long a medical teacher himself, a pupil and member of the family of the great Agassiz, scholarly and worldly wise, the relentless foe of ignorance and dishonesty in his profession and out of it, he was peculiarly fitted by nature and education for the task assigned him. Displaced from the position which he had filled with so much honor by the exigencies of political life, he only lived long enough to see much of his work set at naught in his own State. Intimately associated with him for years, and gathering much of the inspiration for my own work from his precept and example, I feel that I honor myself in honoring his memory.

The present very satisfactory law in this State was only secured after many trials and failures. I have never been able to learn who prepared and secured the passage of the law of 1874. Up to that time, and practically up to 1888, there was free trade in medicine, any person

being permitted to practice with or without an education or a diploma, and subject only to the common law. As has been before said, this had passed unnoticed in *ante-bellum* days, as quackery was comparatively unknown.

My legislative experience began in 1880, when, as your representative, and with the approval of the State Board of Health, I prepared and had introduced into the General Assembly a bill with substantially the same provisions as are embodied in the present statute. The bill was promptly smothered in committee, the chairman and two of the members being non-graduates, of which fact I was then ignorant. They assured me that they would take good care of the bill, and I suppose they did. The bill of 1882 was killed by the persistent opposition of a medical member who had been sued by a member of the Board for his tuition fees ten years before. That of 1884 met the same fate from the opposition of the medical schools of Louisville under a misapprehension; but it was too dead for resurrection that session before they had been made to see their mistake. That of 1886 passed the House, and I had every assurance that it would pass the Senate without opposition. As it failed to do so I went up again two days before the session closed to ascertain the cause of the delay. Upon my arrival the chairman of the committee, who was an estimable non-graduate physician, disappeared with the bill in his pocket and was not found until after the session had closed. In 1888 the bill passed, but so emasculated that it fell far short of its objects. In 1890 it was improved, but was still weak and unsatisfactory.

My work often appeared like that of Sisyphus, as for ten years my rock had rolled back each time just as success seemed assured. The evils of quackery became, however, more and more apparent, and the idea gained friends from year to year both within and without the profession. The State and local boards of health had also grown in power and importance, and their influence began to be felt. In 1893 the present comprehensive statute was enacted, exactly as I had drafted it, through the efforts and influence of the medical members of the two houses and that of leading physicians throughout the State.

As I had exhausted every honorable means at my command, as well as those of my colleagues, for thirteen years, often at serious personal sacrifice of time and money, to secure the passage of this law, you can imagine my surprise to find it opposed by some reputable medical men. In good time this opposition disappeared also, under the conservative

policy adopted by the Board for its enforcement, although it greatly increased the labor and correspondence incident to putting the law into operation, and gave much temporary aid and comfort to the quacks.

In attempting to make it clear to you that any permanent elevation of our standards must be educational in character, and backed by legislation procured and sustained by the better class of the profession, the principal difficulties to be met have been incidentally referred to. Others remaining to be considered will now be briefly taken up in the order of their importance.

Of these the so-called medical-preceptor and office-pupil system ranks first, being in fact the tap-root of our present evil medical educational system. As it now exists it is an evil of modern growth, and I am sure that its magnitude and far-reaching effect upon the profession is not generally appreciated. Few physicians are competent instructors, and these usually belong to the busy class who do not take students. As a preceptor the average doctor is a farce and a failure, and yet it is the average doctor and under who is so prolific of students. The entire system is the relic of an age where entirely different conditions prevailed. Under the old regime, when the physician was also a pharmacist, and when teaching was almost entirely didactic, office training had an entirely different place, and the student was an important adjunct. The individual doctor of that time was an important personage, and to be his student was an honor accorded only to a privileged few. Like the lawyer of that day the doctor came from the cavalier class, and, like him, he honored it. Well-fed, well-dressed, white-chokered, courtly and dignified, and sometimes even a little pompous in manner, having himself a profound respect for his profession, and demanding for it the respect of others, the oracle of his community, because usually the best educated man in it, his influence upon his rare student, who was the educated son of his friend and neighbor, was ennobling, and his bearing and manner infectious. Some of this noble race are still with us, a few, whom it would be pleasant to mention were it not invidious, always attending and lending a hallowing influence to our annual gatherings; but most of them have passed away, or have been displaced by the hustling, bustling modern doctors who swarmed into the profession like locusts during the interregnum above mentioned, and with their students and their students' students now crowd each other almost to the starvation point in city, town, and country.

I want to speak plainly upon this point, and yet would not be mis-

understood. The educated physician of to-day, though less picturesque, is scientifically superior to any that has preceded him, and the majority are fairly well qualified, but the lower stratum, the element which is dangerous to the best interest both of the profession and of the public, very respectable in numbers only, sprang from an entirely different class, and is quite apart from the body of the profession in aims and ambitions. The average of this class is often unkempt in person, illiterate, has attended no school or a cheap one, takes no journals, belongs to no societies, has no library to speak of, and no instruments except a rusty pocket case and two or three gum catheters, is very tenacious of his rights as against other physicians, has a holy horror of any thing not in accordance with the Code, which he has probably never read, and he practices medicine because he finds it easier to eke out an existence as a doctor than in some other vocation for which nature and education have fitted him. That this is no fancy sketch is attested by the fact that several copies of the original can be found in nearly every county.

If such a man would be content to confine himself to the practice of medicine the evil would end with him, but he is ambitious to become a teacher, and his sons, cousins, nephews, and those of his neighbors, finding how easy and cheap it is to get into the profession, gratify his ambition, are soon found in that one of our colleges which has the shortest terms, and they too become doctors and have students, and this is repeated to the third and fourth generation. Many of the better class of physicians also make an evil of the preceptor system by permitting or inducing young men who have no special qualifications to become their students for family or other influence, or because they do not like to say "no" to a fond and ambitious mother.

Largely from these sources the profession is rapidly becoming overcrowded, especially in its lower ranks, to a degree which works great evil to it and to the public. Pressed for the means of support, they underbid each other and resort to other black arts to get practice in many instances, and sink lower in the scale from year to year. From the more shrewd and unscrupulous, who are thus forced to the wall, come the itinerant, advertising, and patent-medicine class, which has so scandalized the profession in recent years. In all this the public suffers equally with the profession. A doctor who is a failure financially is usually a poor one in other respects, and his patrons are often even the greater sufferers.

It has become the fashion to lay all the blame for this unfortunate condition of affairs at the door of the medical colleges, but years of experience and patient investigation have convinced me that much of this is unjust. It was doubtless true that at one time some of these institutions were run, as the Democratic party proposed to run the tariff before Gorman and Brice took charge of it, "for revenue only," but these were the exceptions to the rule among those which professed to be reputable. It is also true that the profession is almost as much overcrowded with schools as with doctors, and that in the close competition between them many students were matriculated and graduated who were prohibited by illiteracy from profiting by the course of instruction, except within narrow limits; but, before the day of rigid legislative tests as to the right to practice, the schools were in a large measure helpless. They did not manufacture students, and, like mills, could only grind such grist as was sent to them by the preceptors. As there was nothing to prevent even the poorest student from becoming a full-fledged doctor without the formality of a college course or diploma, they could well afford to be independent. Nearly a thousand of this class were found practicing in this State when the law of 1888 went into operation, and many of the older ones are still doing so under the liberal time clause of the present law. I feel that it is proper for me to say also that we have always found the faculties of the medical schools of this State and elsewhere in the front rank of those who are laboring earnestly in this cause. They brought a strong and essential influence to bear in securing the passage of our law, and in the days of trial many of them stood shoulder to shoulder with those charged with its enforcement. There are doubtless laggards among them, doubtless a number of them who can not be relied upon to stand to their agreements, and these, as may be easily understood, greatly hinder the advance movement; but on the whole it would be well for the profession if all others were contributing as much to its upbuilding as our medical teachers are doing.

With the improved facilities of instruction, with four years' study and three courses of lectures assured, it will be the fault of the individual, or of his preliminary education, if he does not come out fairly prepared for his life-work. There still remains the difficulty of devising some satisfactory practical plan for insuring a proper preliminary education before the student is permitted to matriculate. This is a matter of such vital moment as entitles it to the most careful consideration.

The standard should probably be fixed by the licensing bodies after conference with the college faculties, and the latter should probably be entirely relieved of the responsibilities and temptation of passing on the qualifications.

Another great practical difficulty grows out of the local personal jealousies between physicians. In the public estimation this is our most vulnerable point, and the one that brings upon us the most odium. Its extent and all-pervasiveness can only be appreciated by one brought in constant contact with the profession over a large extent of territory. With a few notable exceptions, in city, town, and country, I have found its blighting influence co-extensive with the State, embittering the lives of medical men, their families, and often their friends. In most little hamlets where there are two doctors there are two factions, with the whisperings and inuendoes incident thereto, usually false or greatly exaggerated on both sides. I have received hundreds of confidential letters, often badly spelled and worse written, growing out of this condition. In one mail would come a letter telling me that "the law will be useless and a dead letter in this community unless Dr. X, who is very ignorant and unprofessional, is shut out," and the next would probably bring one from his neighbor making similar or worse charges against him. Investigation usually showed that each stood equally well with the other in the community. This state of affairs hampered the work of our referees in many counties, and was one of the most serious obstacles encountered in putting the law into operation.

I have given some thought to this peculiarity of our profession, but confess that no satisfactory explanation has occurred to me. It is true that we lead isolated business lives, but this appears an effect rather than a cause. With this exception physicians compare favorably in liberality of views with the other learned professions, being even more free handed in charity than any other. I am convinced that our profession contributes more to the poor every year than all the churches and ministers combined. In the long run I have never known any doctor benefited by this course, and, to say nothing of the wear and tear on the temper, and of the disgrace it brings on the faculty, there is every conceivable reason why they should get along agreeably. Enlisted in a common cause, often in perplexity and doubt, the advantage and comfort of a free interchange of opinion in and outside of the consultation room would be an inestimable boon, and the cultivation of the feeling and manner which would make this possible would give our profession

a position in public estimation which it very much needs to have, and which would increase both the pleasure and usefulness of its work immeasurably.

You will doubtless notice that all the obstacles referred to are intra-professional. This will hold good till the end of the chapter. We have nothing to fear except from incompetency and dissensions within our ranks. What its best elements unite in asking for the professional and public good, and rightly considered these are inseparable, the law-making powers now gladly accord, and the courts and executives as willingly enforce, and with the rank and file properly educated and organized it would be invincible for all that is right.

The incentives to this work are abundant, and the time is propitious. Properly utilized the passage of the law marks an era in the medical history of the State; but unless the work so auspiciously begun is followed up a reaction will soon set in. This has been the experience in Illinois and other States, and ours is not likely to prove an exception. Kentucky was long a rich field for the charlatan, and it will not be easily abandoned; and we may always count on an element, professedly within our ranks, who will support any effort made to break down the law. Under one pretext or another, but usually, as it will be claimed, to strengthen it, these efforts will be renewed from year to year, and it will require eternal vigilance to prevent their success.

Societies should be organized in every county in the State, and through these every eligible physician within her borders should be brought into this Society and receive its literature, which would be greatly enlarged and improved by such an opportunity. If necessary the State should be divided into districts with an organizer in each to work under your direction. The immediate advantage resulting from the successful inauguration of such a plan would be great, and the remote value incalculable.

And this is your work. No other organization is equal to or will attempt it. You can combine and utilize the rank and file of the profession, the local societies, and the schools as no other organization can. The State Board of health realizes, and always has realized that in this work you are its chief inspiration and support. When others wavered, you cheered us; when the result seemed doubtful, your worthy president and every individual member throughout the State held up our hands. We now ask you to complete and make effective that part of the work which you alone can do.

Under the influences here portrayed our profession has passed and is passing, not wholly unscathed, through a terrible probation, and the end is not yet in sight. Unless the present advance is systematically followed up by you it is likely to prove an episode rather than an epoch in our history, a mirage which we had thought was a mainland; but, if it is followed up, I feel that we might safely say of ours, as did the poet-priest of our fair Southland of another noble cause:

Look aloft! look aloft! lo! the clouds drifting by,
 There's a gleam through the gloom, there's a light in the sky,
 'Tis the sunburst resplendent—far flashing on high!
 For our dark night is waning, our day dawn is nigh!

BOWLING GREEN, KY.

HOW LONG UNDER CERTAIN CONDITIONS COULD THE AVERAGE LONGEVITY OF MAN BE MAINTAINED? *

BY T. B. GREENLEY, M. D.

As hygiene and prophylactic medicine seem to occupy the attention of many medical men at present, this would not seem to be an inappropriate question.

Dr. Dalton, of St. Louis, in a very able and interesting paper in the *Journal of the American Medical Association* of June 3, 1893, tells us how to live so as to attain old age. Although he points out very important essentials in the way of living, there are some, I think, of equal importance which he has omitted. However, it would require a very long paper to embrace every thing in this connection.

I have long entertained the belief that by observing all the laws of health that the time allotted for man to live during the time of Solomon might be attained in our age of the world, although at present it only amounts to about fifty per cent of that time.

There exist two prominent factors in our time which contribute very greatly to shorten life, which did not pertain to a very great extent in the days of the wise king. I allude to the present state of civilization and the common violations of the laws of health.

The many ways in which health is destroyed and life shortened by the influence of these factors are so palpable to the observant mind, that it is hardly necessary to allude to them except in a cursory manner. In fashionable life we see every day health injured by late hours, impru-

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dent dressing, overeating and drinking—many times to gluttony of indigestible food and to inebriation of intoxicating liquors. This kind of living soon impairs the digestive functions, and if continued ends in general impaired health and premature death.

There are many diseases resulting from what we term modern civilization; but of this we shall speak more hereafter. If we wish to prolong the life of a generation we must commence with the infant. The mortality of childhood is very great, and no doubt great amelioration in this particular could be effected by proper management. This large mortality pertains to cities and large towns more than to the country, and is due mostly to avoidable causes.

We notice in fashionable life that infants, as a rule, are turned over to the wet or some other nurse, many times without regard to proper qualifications or adaptation, where the child fails to receive due attention in many particulars. The little thing may be half starved, or supplied with unhealthy food, and badly treated in other ways. No one but the mother should have entire supervision of an infant. It is in early infancy that strict attention and care are so essential. The mortality of the first few months is very great, and especially is this the case during the first weeks. I have always thought if the first few months of infancy could be more directly brought under the supervision of the profession that many young lives might be saved that now perish.

It is in the hot summer months that mortality among infants in cities is so great, especially among the poor. They, as a rule, are confined to unhealthy localities, and suffer for want of fresh, pure air and proper food, and many times are crowded into narrow quarters. Under such circumstances fifty per cent of them will die before the fifth year. Take the State of Kentucky as a whole, and the mortality of infants under five years of age is over forty-two per cent, and twenty-five per cent under one year. But, of course, it is much greater in large cities.

Now it would seem to the thinking mind that some means could be used to abate this terrible infantile mortality. Philanthropy must reach forth a helping hand to improve the hygiene of the infant's home, as well as to exercise proper supervision over its management in the way of diet, etc., especially during the first year of life. These remarks apply more particularly to cities and towns.

As before remarked, it is impossible to greatly lengthen human life while infantile mortality remains so great. As a rule, in the country,

especially among the poor, children are more healthy and grow up to be stouter men and women than those more delicately reared. They live mostly in the open air and are fed on plain food. If a child of healthy parents runs the gauntlet of such diseases as children are subject to, and at ten years is in good health, with proper care in the observance of all the laws of health in the way of diet and the avoidance of exposure, we can not see why he may not attain to old age.

In the first place the functions of digestion must be protected. This is the most essential factor in the preservation of health. Errors must not be committed either in eating or drinking. The diet should be such as requires the least labor on the part of the stomach to manage, and at the same time in accordance with the occupation of the individual. If he leads an active, laborious life, he will require more of the proteid or nitrogenous element in order to keep up muscular strength. It is as injurious to the health to eat too much as too little; the quantity being regulated by the character of the occupation. Severe physical exertion should be avoided, especially should it not be prolonged. Heart strain and apoplexy may thus be avoided.

If no indiscretions in eating and drinking are committed, and proper exercise practiced, our digestive powers will be apt to be maintained.

The question now arises, can we by maintaining a proper diet so as to insure normal digestion and assimilation, prevent the occurrence of chronic diseases which frequently develop under opposite conditions? We are inclined to the affirmative of this problem. No doubt most physicians who have practiced for many years have observed that phthisis pulmonalis, amenorrhea, anemia, etc., nearly always have their origin in functional derangement of the stomach and malnutrition. In fact in this condition we possess much less resisting power to the onset of many diseases.

Owing to the failure of proper digestion and assimilation cellular function and metabolic action become greatly impaired. The skin and bowels now become torpid, and excretion devolves mostly on the kidneys. It is the opinion of some medical men that in a state of impaired health we are more apt to have the development of tumors, both benign and malignant. In fact in carcinoma it is common to notice a peculiar dyscrasia or anemic condition preceding the formation of the tumor. This has been the observation of the writer in several instances. And it is admitted by most bacteriologists that pathogenic germs have but little effect on persons in perfect health.

Now these considerations should induce people to endeavor to preserve their health by every means at their command. If we should imprudently or unadvisedly commit any fault in diet or drink, or should expose ourselves to inclement weather, or do any thing by which health suffered the penalty, it should be a reminder not to repeat the indiscretion. It should be our main duty to study the proper means of preserving our health, for without this our enjoyment is limited and our days shortened.

It is not only the opinion of some that good health can be maintained by proper diet, etc., but that certain diseases can be greatly benefited if not cured by the same means.

It is now believed by some acute observers that carcinoma is the product of starved or degenerated cells, and that if the patient can eat, digest, and duly assimilate proper diet that the growth of the tumor will not only be arrested but diminished in size.

Good, healthy blood, they maintain, is antagonistic to abnormal growth. This seems to be a reasonable proposition.

Dr. Salisbury maintains that some diseases can be cured simply by dietetic means; and if it is true that good digestion and assimilation will prevent the development of disease, why may it not retard or cure it after it is formed?

The writer has seen great good result in the treatment of chronic disease by proper nourishing diet, and is elated with the hope that greater attention will be given to the matter in the future.

A great many fads in medicine are being brought into view, among the latest of which is the use of the various tissues of the inferior animals for disease of similar tissues of the body—as the muscular, nervous, vascular, and glandular, in the form of their extracts, called musculine, vasculine, neurine, and glanduline. If we have degeneration of muscles give musculine; if involvement of the nervous system, neurine is the remedy, and so on. These extracts, or active principles, are to be injected into the blood.

This reminds one of Dr. Hammond's late fad, which might be termed organopathy. He prepares extracts of the various organs of the sheep or bull, and in case of disease of any special organ uses the extract of the corresponding organ of the animal as a remedy. The former of these fads is not new, but was in vogue forty or fifty years ago under the name of isopathy. Dr. Wood suggests that it be called sarcology. Dr. Hammond's fad is simply an extension of Brown-Séquard's rejuve-

nating process by testicular juice. This is one of the oldest fads extant. It was practiced by the dissolute nobility of ancient Rome to increase their virile powers and appetite. They, however, used the testicles of goats instead of sheep. Hammond claims great beneficial results from his cerebrine and testine, and entertains the hypothesis that the extract of any organ of the inferior animal, to wit, the bull or sheep, is a remedy for a corresponding organ in man in a state of disease, either functional or organic.

There may be some truth in this hypothesis, as we know that in the absence of the thyroid gland we have myxedema, and it is now claimed that the thyroid of the inferior animals, for instance the sheep or ox, will greatly ameliorate if not cure the disease. Also we might cite the diseased or lost function of the pancreas, wherein we have glycosuria or diabetes as the result. It is now claimed that pancreatine, or the pancreas administered in such cases will act as a remedy against the formation of sugar.

If these claims are true, why may we not indulge the hope that if we use such diet as we know the system demands in order to perform the various functions of the economy in a healthy manner, we may be able to ward off many diseases which we are subject to under ordinary circumstances. Of course in conjunction with proper aliment we must observe the various laws of health in other particulars.

In order for any people to acquire the average longevity of three score and ten years, it would be essential to have enacted some statutory laws, which are now regarded as sumptuary. There should be laws against intermarriage of close consanguinity, and all persons afflicted with constitutional or hereditary disease, either physical or mental. A prohibition of this kind would tend greatly to lessen the mortality of infants.

There is another cause of disease and death that might be abolished under proper restrictions, although, so far, effort in this direction in most instances has proved to some extent abortive. I allude to the prohibition of the manufacture and sale of alcoholic liquors. If the excessive use of spiritous liquors could be prevented, a great step in the prolongation of human life would be attained. This is not all; the happiness, morals, and prosperity of the human race would be wonderfully advanced. To say nothing of its detriment to health and life, we might safely charge, directly and indirectly, eighty per cent of the misery, poverty, and degradation of the human family to this pernicious

cause. Aside from the many physical ailments of which intemperance is the progenitor, we have as its results a large proportion of the mental troubles due to involvement of the nervous centers. In many instances these troubles are entailed on offspring through the agency of heredity. The question here arises, how can the destruction of human life and happiness due to the use of alcoholic liquors be curtailed or prevented? This problem, if ever solved, will find its solution some time in the distant future. It will be when politicians and so-called statesmen will have arrived at the conclusion that health and happiness of the people are of greater value than dollars and cents.

As long as commercial interests override every thing pertaining to the welfare of the people, there is no hope that any measures will be instituted by which this great curse shall be avoided or abolished. Legal authorities, both national and municipal, issue license for the sale of this deadly poison, knowing the terrible consequences that will result. They claim that legislation to prevent the manufacture and sale of alcoholic liquors would be depriving the people of inherent rights. They do not consider that it is the duty of the government to enact laws to protect the welfare of the people. It should be the first consideration of all governments, and more particularly a free, republican form of government, to legislate for the health and happiness of its citizens. It is on this feature of our Government that a National Health Board is formed, as well as the establishment of quarantines and the erection of hospitals. But it seems, as before remarked, that when it comes to weigh commercial interests against the welfare of the people the latter is entirely ignored.

If an epidemic or contagious disease, such as cholera or yellow fever, threatens our shores, the Government, as well as the people, become greatly alarmed and immediately institute measures to prevent it. They do not take time to think that the use of alcoholic liquors destroys more lives annually than all the epidemic diseases we are subject to, either of endemic or exotic origin. Until this fact is properly appreciated the destructive influence of drink on the morals, health, and life of the people will be apt to continue. The people of the United States pay annually over one hundred and fifty million dollars as taxes on alcoholic liquors, the commercial value of which by the time it is consumed equals nearly one billion dollars. This represents the cost of one article people pay for by which health is destroyed, paupers produced, crime committed, morals contaminated, and insanity and death result.

Now, can we reasonably offset the value of this article of commerce in the way of government revenue, in dollars and cents, by the loss sustained on the part of the people by its use? In the first place we will estimate the value of human life directly and indirectly destroyed by its use, which represents at least fifty million dollars. Then, if we calculate the cost of State and municipal governments made necessary on account of criminal conduct due to the use of intoxicating liquors, to say nothing of the cost of keeping prisons, hospitals, and asylums, we have indicated an offset to the estimated commercial value of this great health destroyer, including the government revenue it affords.

The unprejudiced mind can easily conceive what a vast difference would exist in a moral, intellectual, and financial aspect among a people where no ardent spirits were used, to say nothing of good health. This difference was plainly manifested in the little city of Pullman, near Chicago, a few years ago. It had no saloons nor police force, and if any violation of law or morals was committed it was done by outsiders.

Can we hope that some time in the distant future such an utopian condition of the people may supervene, or shall we wait until the millennium arrives? But in our opinion the supervision of the first would be the inauguration of the latter. It is a plain problem that, as long as the prevalent use of ardent spirits exists, without divine interposition the millennium will not come.

There are other excesses which might be mentioned, that tend to impair physical functions and shorten life. We allude more particularly to excessive venery and use of tobacco. Many boys and young men are ruined in health by these pernicious habits. Parental control and moral suasion are the best means to be used to prevent the contracting of such habits. Prostitution on the part of girls and young women tends greatly to shorten life. The average life of the prostitute is about four years, many of them committing suicide.

Aside from observing all the laws of health and avoiding the causes of disease, it is very essential to aid longevity by cultivating an even, pleasant, and happy temperament. If we permit ourselves to fret and get out of humor at every little obstacle or unpleasant thing that may meet us in the path of life, we will to that extent injure our health and shorten our lives. Let us be happy and contented in all things.

Now, as to the longevity of man, the question may arise, would it be better for people to live to be old? Some may be impressed with the idea that old people do not enjoy life, and are only a misery to them-

selves and a burden to their friends. From the observation of the writer this is entirely an erroneous opinion. I have known many people over seventy years old, and have noticed that they enjoyed life as much as young people. Of course the trend of their enjoyment was in different channels from that of the giddy young, but apparently equally as great. And it can be safely stated as a settled maxim, that, as a rule, an old person in good health enjoys life, in various ways, as much as when young. I am well aware that the opinion of the young is in contravention to this hypothesis. They think when people grow to be old that their minds are occupied in the thought of and preparation for death, and regard it as singular that such is not the case. When young I entertained similar views, and thought it very strange to see old people happy and enjoying life. But now, as I am past the time allotted to man in the days of Solomon, I feel qualified to state that old people in good health can live as happily and enjoy association with their friends as much as when young. As to the contemplation of death, both old and young should have some regard to the matter, as it will sooner or later overtake us, but this thought is no more distressing to the old than it is to the young. The old adage is very true, that "the young may die, but the old must." We should so live as to be able to take a satisfactory retrospective view of our lives, then the thought of death will have no terrors for us. This mode of life affords us a contented and happy mind, which, as before remarked, greatly contributes to health and longevity.

When we have passed the zenith of life and our faces are turned toward the occident, it is time we should exercise charitable and kind feelings toward our fellow man. I have always entertained an abiding affection toward all true members of our profession, and as I grow older I believe that brotherly feeling increases. I never feel so happy and contented as when in congenial association with my *confrères*, and can truly say that here is hoping that they all may live to be as old as myself and feel as happy. My health is such at present as to induce me to hope that another quarter of a century may be added to my life.

As stated in the outset, I believe that if proper attention is given to the various periods of human life, at the same time avoiding as much as possible the causes of disease and death, that we will approach the average life allotted to man in the days of the wise king. And I can say to my young *confrères* that they need not fear living to be old if they will practice the precepts here inculcated.

**SOME REMARKS CONCERNING THE MANAGEMENT OF SO-CALLED
DYSPEPSIA.***

BY J. B. MARVIN, M. D.

Professor of Principles and Practice of Medicine in the Kentucky School of Medicine.

I recognize that the subject I have chosen is a very old and broad one, yet I believe there is much we have not dreamed of in regard to the management of so-called dyspepsia. I do not know whether my experience has been anomalous, but certainly I have been materially worried by cases of so-called nervous dyspepsia, and I thought the subject of sufficient importance to bring before you to-night.

Since Czerny's experiment of removing the stomach of the dog and proving that the animal could survive and digest food after the removal of that viscus, some authorities have gone so far as to claim that it is an unnecessary organ, that it was some mechanical sort of contrivance which we really did not need. Kussmaul and his followers, however, I think have given the death-blow to that idea, and the introduction of the stomach tube, the withdrawal of the contents of the stomach, and the submission of these contents to chemical tests, have put some of the lesions of this organ on a more scientific basis. If I have read literature aright, however, the introduction of the stomach-tube has been abused in Germany, but it certainly has not been used sufficiently in this country. All of you, I think, will agree with me that you often see cases where you have tried powders and tonics, the pepsins, panopepton, acids, alkalies, and every thing generally recommended in books for the treatment of dyspepsia so-called, without benefit. It seems to me that the condition in such cases is largely a neurosis dependent upon overwork or anemia. The overwork may be mental or physical; you find it in women, although I have seen just as bad cases, if not worse, in men. I am thoroughly convinced that the nervous manifestation of indigestion is just as liable to occur in men as in women. Women may be a little more liable to it because of frequent pregnancies, lactation, etc.

First, we realize that the stomach is a hollow organ coated with mucous membrane and certain glandular structures acting on the whole as if it were a gland, secreting and emptying into this cavity certain fluids, pepsin, muriatic acid, etc. Next, a muscular coat, which by contracting and relaxing produces a churning or mixing of substances

* Read before the Louisville Clinical Society, May 22, 1894. [For discussion see page 68.]

taken into the stomach with the gastric juice; next, and just as important if not more so in my estimation, it must have the motor power to propel that mixture through the pylorus into the duodenum; then to have healthy digestion you must have good motor power. Next, the stomach must be able to secrete muriatic acid and pepsin; there must not be any abnormal conditions that will interfere with this process. Now, by the method of Kussmaul, introduction of the tube and certain other means, you can test very accurately in a given case the motor power of the stomach. In this way we can ascertain the cause of most of these distressing troubles. You can test certainly whether any acid is present or not, and whether in sufficient quantities; also whether pepsin is present in quantity necessary for proper digestion; tests may also be applied for other ingredients which abnormally are secreted by the stomach.

I have found it a very easy matter to introduce the tube. I use the ordinary flexible tube with a bulb in the center and a funnel at the end. If I wish to watch the flow I generally cut the tube in two and put a glass tube in between the two ends. I do not grease the tube; I simply wet it with water. I generally make the first introduction and teach the patient to make the next one himself. If a man is suffering, and he usually is, he is very willing to submit to it. As to position, I have the patient sit up in a chair, throw the head back, and then with care introduce the tube; at the first trial he will probably cough, and perhaps vomit, but after a little while in it goes, and the next time it is very much easier. It is not necessary in my experience to use cocaine, grease the tube, or make any local application.

The typical way of obtaining a sample of the contents of the stomach for testing purposes is to take an empty stomach and then give a test breakfast or a test supper. I generally have the patient take in the morning a cup of tea and a warm roll, or a couple of rolls. In an hour or an hour and a half afterward I introduce the tube. Then by making him cough and squeezing the abdomen, especially if he makes an effort to cough, you can get a teaspoonful or more of fluid from the stomach. I have never found it necessary to use a suction pump for withdrawing the contents of the stomach; but by the squeezing process and making the patient cough a quantity sufficient for all practical purposes can be obtained.

After a sample of the fluid has been withdrawn, the first thing is to test it for acid, which is a very simple process by means of litmus paper.

If it is alkaline or neutral, it is abnormal; then you can see what acid is present. In healthy digestion at first it is lactic acid, which hardly lasts more than half to three quarters of an hour, then it is muriatic acid for an hour to an hour and a half, when it changes again to butyric or lactic acid. To make the test is very simple. First I use litmus paper to see whether there is acid or not; next the best means I think is Gunzburg's reagent, which is composed of phloroglucin, 2 parts; vanillin, 1 part; alcohol, 30 parts.

It is desirable to have a fresh solution; I make up a small quantity of this for each patient. If you will take five or six drops of this solution and add three or four drops of the withdrawn contents of the stomach and heat on a porcelain capsule, if muriatic acid is present the result will be a beautiful crimson color around the margin. The resorcin solution is more stable but not so delicate. If lactic acid is present you use a mixture of carbolic acid and perchloride of iron; that gives you nearly an amethyst reddish color. If you will add to that a few drops of the contents of the stomach in the lactic acid period you will change it into a yellow color, which is a sign of abnormality under these conditions. Then you want to go a step further and determine if the stomach is capable of properly digesting food. You can test starch by means of Lugol's solution blue or blackish blue color if starch is present. You can go a step further and test for sugar with Fehling's solution. The last test for albuminoids is the most complicated and perhaps the least reliable.

I have taken some of the contents of the stomach after I had applied these tests as I have intimated, and then added a little coagulated egg albumen to see how it would digest it. The stomach has to convert the natural albuminoid bodies into assimilable albumen and peptones, and this must be done through something that is contained in the muriatic acid or pepsin secretion. Some authorities advise that we go on and test some of the filtered contents to see if albuminoids are present; this is done by heating—a precipitate means albumen or syntonin; filter and add nitric acid—a precipitate means propeptone; then, after that has filtered off, add a small quantity of solution of tannin, which will throw down a precipitate and means peptone. Now there is one other test which is just as important as the foregoing, that is to give us some idea of the motor power of the stomach. This test is based upon the idea that salol will not be decomposed by acid gastric juice, but passes through the stomach, then into the alimentary tract, and there is decom-

posed into salicylic and carbolic acid, and is directly eliminated through the urine. In order to make this test I would give a patient ten or fifteen grains of salol either in a capsule or coated pill; then, following this about forty minutes, I would test the urine for carbolic or salicylic acid. If it does not show in the urine in about three quarters of an hour, then it is evident that the stomach is sluggish and does not propel its contents promptly into the duodenum. Sometimes you will find that the salol is eliminated through the kidneys for quite a number of hours, lasting as long as twenty-four or thirty hours. Certainly in cases where salol is being eliminated by the action of the kidneys for thirty hours after administration, it is evident that the stomach is not only in a sluggish condition, but is also wanting in motor power.

As I have already said, these tests are all easy enough, only requiring a little patience and care, but by them we can separate a vast number of cases and see which belongs to this or that class, and can keep our therapeutics on a rational basis.

Now, take the last class of cases—loss of motor power. We find troubles of various kinds may interfere with the motor power of the stomach through the nervous system; functional inactivity of the stomach may give rise to many symptoms. Some underlying cause might produce increased hyperacidity of the stomach; or it may act in another way, diminishing the secretions, which we often see in cases of chronic gastric catarrh, especially in drinkers and old people. Prolonged loss of motor power of the stomach leads to atony; this would give rise to pain, flatulence, and certain dyspeptic symptoms which we call eructations, as well as nervous manifestations, palpitation, vertigo, etc. If there is hyperacidity there is very apt to be vomiting, which is not a marked symptom in atony. In some cases atony simply produces inconvenience of the stomach, pain after the ingestion of food, or flatulence, eructations, vertigo, and other symptoms known to all; if allowed to continue its action will result in something more serious. Atony or loss of power of any viscus or muscle carried one step further is paresis, which is followed by ectasis or dilated stomach; this is still more disagreeable than other forms of the trouble. This may be suspected in every case that has lasted a certain length of time. A man or woman comes to me with history of constipation, so-called biliousness, and with gastric symptoms which are denominated dyspepsia and which we know covers a large variety of questionable cases, with a con-

dition of eructation of gas, palpitation, etc. There may also be very decided pain after the ingestion of food, or pain on pressure over the stomach; then vomiting, especially some time after food has been taken, a day, or possibly two, which can be determined by the fermented character of food vomited, always indicates dilated stomach. This condition exists much oftener than is supposed. The way to detect it is simple enough. I would not advise any of you to try the method advocated by some authorities, that is with seidlitz powders, letting them mix in the stomach, generating gas there. This method is attended with some danger. A simpler but a crude way is to first percuss over the stomach with the patient in a standing posture, then let him drink water, a half a pint at first, and percuss, allowing the patient to continue drinking, and continue percussing, to see how low down the stomach can be mapped out. The stomach may extend as low as the umbilicus. A better way than the above is to pump air into the stomach. After you have inserted a stomach-tube, attach an air-pump, and in this way you can dilate the stomach until its outlines can be distinctly made out. This is very easily done, especially if the patient is emaciated.

If the condition is one of anemia, in other words, if the atonic state is allowed to proceed, you have malnutrition as one of the sequelæ, or you may have by interference with the secretions of the stomach atrophy of the glandular structures of that organ; you may have then ulceration of the stomach; subacute gastritis may set up, which is also a more serious condition.

In regard to the management of these cases, I have narrowed it down to a few simple things. In a majority of the cases I see of gastric troubles in men or women, I find the best results are obtained from the mercurials. Those cases of biliousness, so-called, which are nearly always dependent upon indigestion, are benefited more markedly in my experience by either small doses of calomel, or calomel and ipecac, or the old-fashioned blue pill. How mercury acts, whether by exciting the flow of bile, whether by stimulating the mucous or glandular structures, whether by toning up, as it were, and increasing the motor powers of the stomach, in this way hastening or aiding digestion, or whether acting as an antiseptic and purgative, I do not know. It is as old as the history of medicine, and in my experience has given better results than any other one agent. In some cases I have given five grains blue mass on alternate nights, keeping it up for quite a while; in some cases only

one grain was given. In some cases I have found it necessary to give a little colocynth. I have employed this treatment extensively and have never had occasion to regret it. I have had one or two cases that I have had opportunity to watch for a period of ten years treated by use of calomel; they would keep a record of the amount of calomel taken from day to day and week to week.

On general principles you might say that iron was indicated in these cases. I think the class in which iron is indicated from the start is rather small. Iron has proven rather an inefficient and unsatisfactory remedy with me. I generally give the mercurials first, relieving constipation and stimulating glandular secretion.

Now there is another class of cases in which you would not use the mercurials; cases where you want some mild cathartic action, cases in which salines in hot water before meals wash out the stomach and empty the bowel. In such cases I have found that Rubinat water acts more satisfactorily than any of the natural saline waters, is less griping and more pleasant. The next and more important in a certain proportion of cases is rest. Given a woman that is nervous and hysterical, suffering from a great many of the symptoms already detailed, I believe the best results can be obtained by putting her to bed, getting her to sleep twenty-four or even thirty hours. Great benefit is sometimes obtained in this way, by giving the patient absolute rest. I know most authorities recommend exercise rather than rest; of course a certain amount of exercise is advisable, but these patients also need rest and sleep, and plenty of it. I am satisfied that another important thing in the treatment of these cases is isolation. I have in mind now the case of a lady that had emesis a number of times a day, which had lasted for a long time despite any means of treatment that had been adopted. Under a few weeks' management, such as I have described, she entirely recovered and is perfectly healthy to-day. Another case of a similar character occurred in the person of a little boy. I gave very small doses of bichromate of potassium, $\frac{1}{10}$ or $\frac{1}{12}$ of a grain in solution pretty well diluted, taken on an empty stomach, repeating this dose two or three times daily. In some cases this drug seems to have a very marked effect, and it is certainly worth a trial. My experience with this old remedy is limited. It has been in use extensively by our homeopathic friends.

Next, in those cases where there is a deficiency in secretion, I do not give pepsin, pancreatin, bismuth, and all such agents which have long

been so popular, but give instead muriatic acid in large doses, following Ewald's method. Some patients have the idea that they can not take acid; that the stomach is already sour; that they suffer from belching, etc. I have found that some of these are the very ones that need acid.

In that class of cases where you have a hyperesthesia and other neurotic symptoms I have been using for the last fifteen years a stock formula varied to suit the individual case, bromide of ammonium in simple composition: Bromide of ammonium, 5 or 10 grains; camphor-water, $\frac{1}{2}$ dram; glycerine, $\frac{1}{2}$ dram. To this formula I sometimes add a drop or two of Fowler's solution. I have had very good results from this simple mixture.

I have recently had under my care the case of a bank cashier who suffered so much distress from indigestion that he had tried on several occasions to throw himself out of a second-story window; he tried once to jump from a moving train, and would have done so had not his friends restrained him. Upon investigating the case I found that he was dieting himself to the extreme, and that the distressing symptoms were most manifest shortly after the ingestion of food. I came to the conclusion that the extreme dieting was increasing his anemia, which was the cause of all this nervous manifestation, and administered the injunction to him to eat more, not to diet himself, encouraged him to eat every thing that was wholesome and rational, to eat if necessary five or six times a day at short intervals. This, in connection with the simple mixture above referred to, worked a revolution in his case.

I have simply given the principal outlines that I have followed in the management of these cases, and I have had some very troublesome ones. I have had a degree of success, and would like to have more. The character of cases that I have described give rise to more anxiety and are much more tedious and unsatisfactory in the way of treatment than almost any class of cases with which we come in contact, and the question naturally arises with us all, how shall we treat them, and what is the best means of effecting a cure?

LOUISVILLE.

Reports of Societies.

THE LOUISVILLE CLINICAL SOCIETY.*

Stated Meeting, May 22, 1894, Dr. George W. Griffiths, President, in the chair.

Dr. A. M. Vance (visiting) showed the lower end of a femur removed by amputation from a male aged thirty-five. About twenty-two years ago, after an attack of malarial or typhoid fever, he developed bone trouble, which has lasted, with some intervals of relief, ever since. He has been under my observation for eighteen months, and just previous to this time he had undergone the following operation: An incision was made in the popliteal space and the femur was trephined, two buttons being taken from just above the epiphyseal line; the wounds never healed and kept running continuously. Several months ago I explored the sinuses under chloroform, cleaning out considerable debris with several spiculæ of bone. Not improving, the patient asked me to amputate the limb. I objected, as he had a leg on which he was able to walk; but as he persisted I consented, if he would allow me to explore the limb and see if the procedure would be right. He refused the exploration, saying he would take all the responsibility. Satisfied that the procedure was right, I amputated the limb at about the middle of the femur on account of the numerous scars present. The specimen proves that it was a legitimate amputation. The whole periosteum was separated, and the central part of the bone, even down to the lower end, was involved, the whole medullary canal having been obliterated. You will see that I just cut above the diseased portion in fairly good bone.

I take it to be one of those rare cases of osteitis which follow typhoid or some other of the depressing fevers.

The patient never suffered any severe pain in the leg, except when abscess occurred, and there was very little swelling of the limb. Besides the operations above described, he had been operated upon a number of times by Dr. Bigelow, of Boston, and other prominent surgeons, without relief.

* Stenographically reported by C. C. Mapes.

DISCUSSION.

Dr. J. M. Mathews: It seems to me that the bone presents evidences of a tuberculous condition. I can not see how an attack of typhoid fever could so localize itself as to develop into an osteitis unless there was something of more significance back of this. That the operation was justifiable the specimen evidences, but what is back of this trouble is of more import to us than the amputation. The disease, it seems to me, must be of tuberculous origin.

Dr. Vance: Of course I can not say that it is not of tuberculous origin, although there is no such history. It is uncommon in the history of tuberculous conditions that a man should reach adult life before it makes its appearance, and the vast majority of cases of bone tuberculosis commence in the epiphysis, which this evidently did not do. It is a fact that any number of cases of bone disease are recorded as following typhoid and other fevers. This is particularly true in cases of osteitis and disease of the spine. This man is perfectly well otherwise; he has always had good health with the exception of this condition. He has been able to lead an active life; is a railroad man, chief engineer, and superintends the building of bridges, etc. He has good lungs and is a well-developed man in every way. I am inclined to think that typhoid fever is responsible for this condition. A specimen of the pus taken from the cavity of the bone will be microscopically examined and its nature reported at some future time.

The essay was read by Dr. J. B. Marvin; subject, Some Remarks Concerning the Management of So-called Dyspepsia. [See page 60.]

DISCUSSION.

Dr. W. L. Rodman: Did Dr. Marvin say that he never advocated dieting in the character of cases under discussion?

Dr. Marvin: If a man shows motor impairment (large quantities of starch and sugar being present) of course he ought to abstain from starches and sugars. Where butyric acid is in excess, he ought to abstain from fats and other greases. Ordinarily, butter, oil, fat, etc., float on the surface of the contents of the stomach and do not interfere with the digestion, but when the motor power is reduced the oils and fats may cause a disturbance by becoming rancid or decomposing. These are the cases in which I would advise dieting of a certain kind. On

general terms I think most so-called dyspeptics err when they diet themselves. Where the nervous manifestations are marked, relief is not usually obtained until the bowels have been regulated; when this has been done the digestion becomes better and there is improvement in the nervous manifestations.

Dr. Carl Weidner (Visiting): I heartily indorse the methods spoken of by the essayist; they are certainly much more exact than we used to have for clearly diagnosing these cases of so-called dyspepsia, and I believe by these methods we will be enabled to do more justice to our patients and obtain better results in the management of such cases. Dr. Marvin said nothing about the use of the tube except as a means of diagnosis; I would like to have heard him say something concerning its use in the treatment of these cases, washing out the stomach in chronic forms, whether dilatation is detected or not, also his opinion as to the advisability of using the tube where there is some dilatation with the possible view of improving the muscular tone of the stomach.

Dr. P. F. Barbour: I have used for the detection of free hydrochloric acid in the gastric juice, instead of the means suggested by Dr. Marvin, Boaz's reaction, which is cheaper, and practically I think the results are as good. There is one test sometimes made in this connection, that is to ascertain the absorptive power of the stomach. In a case of acute or subacute gastritis the absorptive power of the blood-vessels in the walls of the stomach for the peptones produced in the stomach must be lessened, because the walls are more or less thickened, and in addition the mucous membrane of the stomach is covered generally with a thick layer of mucus. In those cases where you suspect that there is too much mucus in the stomach, iodide of potassium forms a very useful test for verifying the diagnosis. When we suspect that the patient has gastritis, that is, a pathological condition instead of purely a functional or neurotic condition, we may employ this test.

I think Dr. Marvin's experience with Rubinat water applies to those cases where there is an abundance of mucus in the stomach. Sodium sulphate, which is the active ingredient of Rubinat water, is the best agent that we have for liquefying and getting rid of the mucus in the stomach. It has the advantage not only of rendering the mucus less viscid, but to a certain extent increases the motive power of the stomach.

Before the recent advances the practice was to treat the symptoms of gastritis without any very definite idea of what we were treating.

Now it is possible for us to find out just what is lacking in the stomach; if it is some element of the gastric juice, such as pepsin or acid, we can supply it.

Dr. Mathews: Apropos to the subject I would say that a few months ago I had a gentleman under observation for some colon or perhaps rectal trouble. He remarked to me that he thought he had dyspepsia. I made no prescription for that, but the man was on the verge of insanity, as I could see evidenced in his daily visits to me. He said that he had been driven to this insane condition by the distress resulting from dyspepsia. I missed him for quite a time. One morning he stepped into my office looking perfectly well in every way, and said that he had been entirely cured of his dyspepsia and his insanity. I asked who cured him, and he replied that he "had found a doctor in the East." I then inquired what this wonderful doctor did, what means he employed, and he said, "the doctor washed out my stomach with a stomach-tube, and I have never had any trouble since."

As a specialist I often meet people who are suffering from what I am pleased to call an intestinal indigestion, and they are just as much invalids as if they had gastritis or stomach dyspepsia.

In the cases I meet and have to contend with I believe that dyspepsia is strictly an intestinal disease. Now we know how often it is that we may have impaction or attempted impaction at the cecum; we all recognize how often it is we may have this condition existing in the ascending, descending, or transverse colon. Time and again patients come to us who will give a history of having an evacuation daily, and if put upon salines, suggested by Dr. Marvin, they will pass an enormous amount of feces, notwithstanding the fact that the intestine has not been doing its duty, otherwise there would not have been any accumulation in the intestine causing a congested condition of the mucous membrane or even the muscular coat of the intestine itself, certainly reaching a congestion, an inflammatory reaction, if you please, and dilatation it may be, consequently encouraging that process in the intestine in place of digestion.

I scarcely believe that Dr. Marvin or anybody else can tell whether dyspepsia originated with the stomach. The stomach itself does not play the only part of digestion, nor does it play the only part in dyspepsia in all people, and if our therapeutics are directed to the stomach in all cases we will fall short of the mark very frequently. In addition to the symptoms already related resulting from so-called dyspepsia, I

would suggest that, suppose you add that condition of general *malaise* with backache, bellyache, discharge of mucus from the bowel, etc., which we sometimes have accompanying those so-called cases of dyspepsia originating in the stomach. Now you might treat those cases as long as you please with especial reference to the stomach, as Dr. Marvin has described, and you will not relieve them; but if you will base your treatment upon the fact that the intestine is concerned and thoroughly purge your patient by the aperient plan that the doctor speaks of, not only once or twice, but keep it up, washing the bowels and colon, keeping them thoroughly evacuated, then giving small doses of strychnine, you will overcome this obstinate indigestion. If you overcome the intestinal indigestion and constipation that these people have by thorough purgation and washing the bowel, all the distressing symptoms will be relieved.

Dr. Wm. Vissman: All through the alimentary canal, beginning with the lips and ending with the anus, there are myriads of bacteria, and the contents of the bowels, or in fact the whole alimentary canal, afford an excellent nidus for the reproduction of a great many, if not all, of the bacteria that are found. These bacteria in their growth produce what we call toxalbumens, some call them ptomaines, but I rather prefer the term "product of metabolism." We have myriads of so-called non-pathogenic bacteria. These bacteria when introduced into healthy tissues of an animal go on and cause no trouble, except perhaps a little irritation. But when we take the products of metabolism of these bacteria and introduce them into the bodies of animals or men, we find there will be produced all these symptoms that we find in dyspepsia; we find it produces backache, palpitation of the heart, general *malaise*, and if we give animals a sufficiently large dose many die in convulsions of a tetanic character.

If you follow the treatment mapped out by Dr. Marvin, and as suggested by Drs. Weidner and Mathews, we find that the whole treatment is simply in the line of asepsis, that is we introduce calomel and hydrochloric acid. Either or both these remedies given in small quantities are very beneficial. We need hydrochloric acid in stomach and bowel troubles, and I have seen a great deal of success from its use. It is also a disinfectant. When we wash out the stomach we also get rid of the bacteria; by giving large doses of salines of any sort we get rid not only of the bacteria in the stomach, but in a measure those all the way through the alimentary tract. As I have said, the question narrows down to the application of aseptic treatment.

Melancholia and other troubles of this character may often be due to auto-intoxication, that is, the decomposition of the contents of the alimentary canal and the absorption of the products. Pasteur has shown, twenty years ago, that we can have no decomposition of animal matter without bacteria of some sort. The question of auto-infection is a very serious one, due to the effect of the various micro-organisms in the alimentary canal.

Dr. Louis Frank (Visiting): I wish to ask Dr. Marvin's opinion of the use of electricity as a diagnostic agent in illumination of the stomach.

I do not agree with Dr. Vissman that bacteriological agents are the cause primarily of all these digestive troubles. I think the normal acidity of the stomach prevents the growth of the bacteria; the results of bacterial metabolism are due to the growth of bacteria in the stomach only when the stomach is in a diseased condition, otherwise we would be constantly poisoned by the products of bacterial growth. The same thing is also true in the small intestine. Of course if we have diseased mucous membranes in the stomach or intestines we are apt to have the same conditions which follow disease anywhere else, but in cases such as are under discussion to-night I think the effects are not due directly to the bacteria, but to the pre-existing diseased condition of the visceral organs.

Dr. W. H. Wathen: I find in gynecological practice that my patients often complain of stomach indigestion that has apparently been caused by disease of the uterus or its adnexa. While remedies directed to the stomach will benefit these patients, they are not cured until the pelvic trouble is relieved, proving the reflex origin of the symptoms of indigestion. Some of these patients can not be cured until you have removed the disease within the uterus, or of the tubes or ovaries. They then get well.

I was interested in what Dr. Mathews said concerning intestinal indigestion, if such it may be called. I frequently find patients with distended bowels generally suffering with constipation, etc., and nearly all of them have some disease of the uterus or its adnexa. In these cases remedies administered to relieve the indigestion of the stomach apparently do not benefit them. The most useful remedy that I have found is strychnia, and I give it in doses of one twentieth grain, repeated three times daily, and get much better results than formerly when I gave it in smaller doses. I combine with this, where there is constipa-

tion, a little podophyllin and aloin. Podophyllin will, in a degree, take the place of mercury, as recommended by the essayist, and the aloin acts upon the lower bowels not only as a purgative, but it stimulates also the circulation in the pelvic structures. If my patients are not anemic, I give nothing else. If iron is indicated I generally combine the citrate of iron and quinine in doses of from three to five grains with excellent results.

I always direct these patients to take all the exercise they can without overtaxing themselves; the best exercise is walking.

Dr. J. W. Irwin: The discussion concerning the separation of nervous dyspepsia into stomach and intestinal has been very interesting, but in my opinion the division can never be made. If you will take the number of diseases that originate primarily in the stomach and exclude malignant growths, tumors, etc., there will be very few remaining, except those due to intemperance in drinking and in eating. Disease of the stomach alone brought about by intemperance and overeating does occur, I have no doubt, and dyspeptic troubles, not neuroses, originate very often from this cause, but this is not the cause of nervous dyspepsia, nor is the dyspepsia that we often have to deal with a disease of the stomach except in a very small percentage of cases, so far as my experience goes—of course I am not now speaking for others.

If a patient is overworked he has little time to devote to eating, and less time to the character of the food and its cooking, etc. The food is often rendered very difficult to digest by the process of cooking, and, even if this were not the case, while he is eating and while the process of digestion is going on he is thinking over matters of business, mental troubles, etc.; drawing from the stomach part of the nerve energy necessary for the completion of the reconstructive process. Is it surprising to find that this man has dyspeptic troubles which can not be said to be due to disease originating in the stomach? Such troubles are due to a lack of nerve energy in the stomach and must be classed among the nervous dyspepsias, if there be such a thing. But let us suppose we have a disorder of the fluids of the stomach by this process, or by drinking or overeating, etc., can we expect intestinal digestion to be perfect when the stomach does not furnish perfect material to be mixed with the intestinal fluids? No. It is impossible to conceive how healthy intestinal fluids can be secreted or digestion can go on without healthy stomach digestion. How, then, can we separate these forms of dyspepsia? The intestinal fluids become deranged as well as

the stomach fluids, and the entire alimentary tract from the mouth to anus is in a disordered condition. All this may be brought about by a sympathetic nervous condition.

One of the remedies Dr. Marvin called attention to was blue mass. Of course this has been recognized for a long time as being very efficacious where cathartic remedies are called for. I question if we have any direct curative remedies for dyspepsia, so called.

Dr. Vissman: In reference to what Dr. Frank has said it is a well-known fact that we have some bacteria that live and flourish in an acid media, others that will not live even in a dilute acid media, but thrive in an alkaline media. The cholera bacillus and the typhoid-fever bacillus will live in acid media, and the tubercle bacillus, if introduced into the gastric juice, while its growth is inhibited to a certain extent the germ is not killed.

Dr. Marvin: I am not surprised that I should have been misunderstood in some respects, as, perhaps, I did not make myself clear. My aim was simply to give an outline of the accepted methods of investigating the condition of the stomach in health and disease. Next I limited my remarks to those forms of stomach trouble caused primarily by anemia or certain nervous conditions, and spoke, or aimed to speak, of them under the common name (which of course I discard in my lectures) of dyspepsia; and spoke of atony as an outgrowth of that form. If the trouble is allowed to continue the next stage will be dilatation or gastritis.

Of course I did not go into details concerning the use of the stomach-tube, because I am rather fully persuaded that in these neurotic conditions the stomach-tube is not the best method of treatment. I have seen cases where they became so fascinated with it that they would use it, then go and engorge themselves and use it again. I happen to know one individual that goes about with a flask of peptonized milk and a stomach-tube in the pocket. In these neurotic conditions I do not think the stomach-tube does as much good as other means of treatment. In dilatation of the stomach I believe it is the best method of treatment known. In cancer or ulceration of the stomach I would not hesitate to use it.

Dr. Barbour calls attention to one or two methods that I did not mention; of course it does not matter what particular test you use so that accurate results are obtained. In applying the test mentioned by Dr. Barbour care should be taken to give the iodide in gelatine capsule and

not in solution. He also spoke of a mucous condition that is often found in subacute or chronic gastritis. In the more chronic forms, of course, the stomach-tube will develop just what treatment is necessary. In neurotic cases we must not overlook the importance of emetics; empty the stomach rather than wash it out first with the tube.

In regard to Dr. Mathews' remarks, of course I did not speak of intestinal troubles rather than limiting myself to gastric digestion. It is thoroughly impossible to separate the two in some respects, particularly if we bear in mind this fact, that without healthy action of the stomach we can not have healthy intestinal action. If the motor power of the stomach is defective of course the food is not properly churned as it were and passes into the intestines only partially acted upon by the gastric juice. These are well-known facts, but as my remarks were limited to digestion in the stomach I did not branch out further.

The most serious and obstinate forms of indigestion that I have ever seen have been intestinal, as much or more so than when referred to the stomach.

In reply to Dr. Frank, I have never used the method of introducing the electric lamp directly into the stomach for the purpose of illumination. I generally use the faradic current externally, though it would probably be better to introduce one electrode into the stomach.

Referring to Dr. Wathen's remarks, I did not speak at length concerning the use of strychnine. The best results I have seen from the administration of strychnine have not been in the neurotic cases, but in cases that have gone on to the point of subacute or chronic gastritis; for instance, where you have engorgement of the liver, congestion of the stomach, etc., I then give strychnine hypodermatically, one twentieth grain three times a day, increased to one tenth grain at a time if necessary, with the very best results. The only bad effect I have seen from it has been that perhaps I would have to leave it off at night, as it produced too much excitement.

Dr. S. G. Dabney (Paralysis of the Muscles of Deglutition): I saw a patient ten days ago who has paralysis of the muscles of deglutition. The patient is a middle-aged man, very stout, married, gives no history of syphilis. He says that about ten days previous to my seeing him he went to bed one night well and waked up the next morning unable to swallow. Laryngoscopic examination revealed nothing abnormal. There was no further history of previous illness, except the important fact that

the man is the subject of diabetes mellitus. This may be a point of interest bearing upon the paralysis of the muscles of deglutition, in view of the fact that the center of diabetes is supposed to be situated in the medulla at about the point where the nerves of deglutition arise. In this case there was at first regurgitation of fluids from the nose, but this symptom has disappeared. The man has had no pain elsewhere, and when examined there was some loss apparently of the reflexes, particularly the patella reflex.

DISCUSSION.

Dr. Vance: I saw a little child some years ago which seemed unable to swallow. I was called to make an examination for stricture of the esophagus, and in using a bougie I swabbed the throat with a small quantity of cocaine, and for a while the child could swallow perfectly well. For two or three days afterward it was able to swallow by the simple application of a small amount of cocaine to the throat. However, the throat soon became irritated from the cocaine, and the child died virtually of starvation.

Dr. Vissman: I have seen two or three similar cases. After a while there was complete paralysis, and in an examination *post-mortem* we found that there were myriads of little punctate hemorrhages all through the brain, particularly on the surface of the cortex. These were peculiar in that the center of the hemorrhage was perfectly red, with a slight brownish-yellow discoloration extending out from the edge of some of them for about a half inch. In all of these cases we found somewhere in these hemorrhages the bacillus influenza as described by Pfeiffer.

Dr. Marvin: It is not uncommon to find a diabetic patient with loss of the reflexes, especially the patella tendon reflex. The diabetes in this case may also account for the paralytic symptoms.

THE CHOLERA.—Cholera is now most severely epidemic in St. Petersburg, and is reported as being of a more intense and fatal character than in the past two years. All the hospitals are now full, and the new cases number several hundred each week. In the Warsaw districts and in the provinces the disease is still prevalent, but has as yet not increased to any extent. The outbreak in Belgium has not spread, and is lessening somewhat. The disease is now reported epidemic in Canton, China, where it is said several thousand deaths have already occurred.—*Boston Medical and Surgical Journal*.

Abstracts and Selections.

HEMATOMA OF THE DURA MATER AND SCURVY IN CHILDREN.—In the last number of *Brain* Dr. George A Sutherland has an interesting paper in which he relates at length the clinical history and the *post-mortem* appearances of two cases in which, associated with rickets, there were also present definite manifestations of scurvy, and among those the rare condition, in this disease, of hematoma of the dura mater, or pachymeningitis hemorrhagica. The first case was that of a female child, aged two, who had been fed on the breast for the first four months, and after that time almost entirely on a milk food. A month before admission there had been great pain in the right thigh, and two days before she came under observation a swelling had manifested itself on the right thigh and also on the left upper arm. There had likewise appeared a bruise-like discoloration on the right side of the forehead. On admission a smooth, firm, tender swelling was found on the left upper arm, and the right femur was found to be fractured about the center. Two days later signs of cerebral involvement were present. There were sickness, rigidity of the neck, and rigid flexion of the arms, and the head and eyes were directed to the left side. The child gradually sank, and died on the same day. At the necropsy an extravasation of blood was found over the vertex of the brain, under the dura mater, while the structures at the base were covered with a thick yellowish membrane which contained no tubercles or nodules. This extended to the Sylvian fissure on each side. The frontal region of the brain also contained two hemorrhagic cavities, one on each side, and on microscopic examination the basilar artery was found to be occupied by a more or less organized thrombus. The right femur was broken across, and under the periosteum was a mass of material, for the most part soft and unorganized, but having in parts a cartilaginous consistence. A similar fracture was present in the right humerus. The liver was tough and small, and the other organs seemed normal. The second patient was also a female, aged fourteen months, who was admitted on February 10th (the year is not given), and who had been first seen in the previous November. She had had a fit and was subject to bronchitis. Over the right parietal and occipital region was a soft fluctuating swelling, and there were two subcutaneous hemorrhages on the back and another on the inner surface of the right arm. There was also some ulceration around the teeth. On March 7th there was an eruption of hemorrhagic spots on the abdomen and back. Previously to this there had been a syncopal attack, and another followed on March 9th. After this the child lay in a state of torpor, and finally succumbed on March 26th. At the necropsy a subconjunctival hemorrhage was found in the right eye, and the remains of a hem-

atoma were found in the parietal region, corresponding to the large fluctuating swelling described during life. In this situation, also under the dura mater, was found a dense, fleshy, purplish-red deposit which covered the surface of the brain. This was loosely attached to the dura mater and consisted of three layers, the most inferior being adherent to the pia mater. The brain was atrophied, and weighed only fifteen ounces. In the spinal canal, also, was a deposit of soft material underneath the dura mater, and, covering the cord, apparently an effusion of blood-stained lymph. The microscope showed the false membranes on the brain to consist of blood-clot in different stages of organization. The cases, it will be seen, are of unusual character and of considerable interest, and the second especially Dr. G. Sutherland regards as supporting the theory of the non-inflammatory origin of pachymeningitis hemorrhagica.—*London Lancet*.

THE QUANTITATIVE ESTIMATION OF DIPHTHERIA ANTITOXIN SOLUTIONS.—Behring and Boer (*Deut. Med. Woch.*, May 24, 1894,) say that the method first employed for this purpose consisted in adding such a quantity of antitoxin as would render an absolutely fatal dose of the poison in question inert when injected. The terms normal antitoxin and normal poison were defined by Behring and Knorr in respect to tetanus. When diphtheria antitoxin was discovered the mixture method referred to above was at first employed. The smaller the amount of the antitoxin-containing serum required the greater the amount of the antitoxin present. This method was, however, abandoned for some time. The relation between the degree of acquired immunity and the antitoxin present in the blood of the immune animals apparently permitted of a more convenient method, but subsequently this relation was shown not to be constant. Hence the direct estimation of antitoxin had again to be resorted to. Then it was ascertained (by Behring with others) that diphtheria antitoxin provides a protection against infection with living diphtheria cultures. Diphtheria normal serum was then defined as being such that when an amount was injected corresponding to the proportion of 1 in 5,000 body weight it would save a guinea-pig after it had been injected with ten times the minimum fatal dose of a living diphtheria culture two days old. This method was adopted, since diphtheria in man is produced by living micro-organisms. The dosage of the antitoxin for man should apparently be proportional to that required for animals infected, not with the diphtheria poison, but with living diphtheria cultures. However, it has been found that the estimation better corresponds to that obtained in experiments on animals when the ready-made poison is calculated from. Ten times the certainly fatal dose of the diphtheria poison has been chosen. The mixture method is not adopted, but the antitoxin has been injected at a different place to the serum. Only the life saving effect has been chosen as the end reaction. Fifty times the amount of antitoxin was required for the cure of a guinea-pig injected with ten times the lethal dose of the diphtheria poison than when injected with

ten times the minimum lethal dose of a living culture. After the harmlessness of this antitoxin was established, together with the protection against and cure of the disease produced in animals when injected with living cultures or the diphtheria poison, it was time to try it in man. It has been shown that diphtheria in man can be successfully treated with diphtheria antitoxin if 500 to 1,500 antitoxin normal units are rapidly injected beneath the skin. Only by means of experiments on animals could these results have been obtained. The authors then relate their investigations with the serum supplied by Schering, and compare it to the Behring-Ehrlich normal solution; they find that its strength has been miscalculated by more than sixty per cent.—*British Medical Journal*.

“DERMOGRAPHISMUS.”—Under the term “dermographismus” Ehrmann (*Allgemeine Wiener Medicinische Zeitung*) describes a peculiar condition of the skin occurring under various circumstances, and depending for its appearance upon mechanical irritation. He distinguishes three degrees of this condition. In the first there appears one after another contraction of the cutaneous muscular tissue, with anemia of the parts affected, then hyperemia, and finally transudation; in the second the muscular contraction is very slight, the anemia is not so marked, and there is hyperemia of the superficial layers of the skin only; and in the third there is only transitory reddening of the skin. But the more common form of case is that in which, on the portion of skin affected, small raised patches of edema appear around the roots of the hair, so that on stroking the skin with some blunt body, or even by the pressure of the clothes, or a button, etc., only an isolated group of white papules appear, which cause an irritation of the skin and consequently soon lose their characteristic appearance, owing to being scratched by the patient. In such cases cutaneous pruritus is diagnosed a “pruritus nervosus.” In some cases recorded the appearance closely resembles that of lichen ruber planus. Ehrmann draws a distinct difference between dermographismus and urticaria. The latter is caused by the action of some toxic substance, this being derived from some affection of the skin or of the digestive organs, or some pathological products are formed (auto-intoxication); but he admits that in some cases of urticaria, in which the nervous system is affected, that disease and dermographismus may exist together. This condition has been observed after mental excitement, such as fright, or in cases of neurasthenia and hysteria. He considers the influence of the nervous system as sufficient to produce dermographismus, and that the presence of a toxic substance is not necessary. Examination of the urine demonstrated the presence of indican in only one out of fourteen cases.—*London Lancet*.

THE TREATMENT OF TAPEWORM IN CHILDREN.—In the *Journal des Praticiens* for May 26th, Dr. Descroizilles relates the case of a girl, twelve years old, who had tapeworm. She complained of pains in the head, and

her appetite was capricious. Diarrhea and constipation alternated, and traces of tapeworm were seen in the stools. The author prescribed eight grains of calomel, and three days later the same quantity of santonica. This was followed by the expulsion of fragments of the tapeworm, thus confirming his diagnosis. Dr. Descroizilles hesitated to interfere directly by a radical treatment, but owing to the persistence of the parents determined, meanwhile, on an immediate intervention, and the following method was employed: (1) For two or three days a special diet, such as fish or vegetable soup, eggs, milk, and a moderate quantity of bread. (2) During the last twenty-four hours nothing but milk. (3) On the day before the attempt at expulsion, toward evening, a laxative enema to be given. A second enema also to be given three hours before the administration of the following remedy: (4) Ethereal extract of male fern, two drams; calomel, seven grains; peppermint-water, two drams and a half; gum arabic, seventy-five grains; syrup, five drams; distilled water, a sufficient quantity to make a mixture of two ounces. A tablespoonful to be taken every ten minutes. (5) Several hours later an enema of castor oil, of from six to seven drams, to be given.

Dr. Descroizilles prefers the ethereal oil of male fern to quince seeds, kousso, pomegranate, and other preparations of male fern. He prefers it also to pelletierine, the action of which is less regular. It is the best remedy for children if it is given in capsules or in gelatin and sugar.

The author is disposed to try a formula given by M. Duhourcau, who combined green ethereal extract of male fern, chloroform, castor oil, and croton oil. The chloroform renders the worm torpid, the extract of male fern is a teniacide, and the castor oil acts as a purgative. The author thinks it is an ingenious combination which responds to the various indications in the rational treatment of tapeworm.—*New York Medical Journal*.

GENERAL PARALYSIS OF THE INSANE AT PUBERTY.—Saiki (*Neurol. Centralbl.*, June, 1894.) adds a case of his own to the already recorded cases in literature (12-14) of progressive paralysis of the insane occurring at puberty and adolescence. The patient was a girl, aged fourteen, who seemed apparently healthy till two years before, when she had an "eruption and enlarged glands," which subsequently subsided. It was then noticed at school that she was morose and backward, and a year ago some speech disturbance began to be noticed. Both speech and handwriting became subsequently very confused and defective, and during the last three months the mental disturbance was pronounced. The pupils were unequal, fixed, reacting neither to light nor accommodation, and the whole complex of symptoms pointed to general paralysis. Direct syphilis could not be ascertained, though the author states that a prominent place as a cause should be assigned to hereditary syphilis, and predisposition in these cases.—*British Medical Journal*.

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TESTICULINE AGAIN.

Perhaps the most sensational, and certainly the most abused discovery in therapeutics since the good old days when the "hair of the dog was given for the bite," and people of culture believed in the efficacy of amulets, charms, and prayers in the treatment of disease, is the testicular extract of Brown-Séquard. Nevertheless the same seeming absurdity has demonstrated its title to be called the fittest, since it has had the vitality to survive among the wrecks of similar alleged discoveries; nor will it down at the bidding of the hitherto invincible fad contemner.

Cerebrine, pancreatine, and other similar "ines" (except perhaps thyroidine) have had their day, and are relegated to the realm of quackery, where they certainly belong; but testiculine seems to have made clear its title to be ranked among the scientific verities of the day, and is slowly asserting its right to a place in the *materia medica*.

In 1889, when the aged discoverer of the therapeutic efficacy of testiculine was held up to ridicule by the secular press, and suspected of imbecility by the medical press, the junior editor of this journal wrote: "It would seem that in the treatment of the alleged discovery the profession has probably been too prompt to condemn, and that it might have been more graceful and respectful, and certainly more scientific,

to have given it more serious attention. That there is a germ of truth in the apparently absurd claims of Brown-Séquard would seem to be attested by"—and here the editor quotes an item which proves the scientific claim of testiculine (spermine) to rank as a therapeutic agent. The editor says further: "It begins to look as if the great Franco-American physiologist was about to turn the laugh on those who have been in too much of a hurry to laugh at him."

In elaboration of the foregoing is the following which we clip from the New York Medical Journal of the 21st instant:

THE ACTION OF SPERMINE.—At a recent meeting of the Société nationale de médecine de Lyon a report of which is published in the *Lyon médical* for May 6th, Dr. Pöhl, of St. Petersburg, read a paper on the therapeutic effects of spermine, in which he said that spermine did not have its origin exclusively in the internal genital organs of the male. He had found it in the pancreatic tissue, in the thyroid gland, in the thymus, and in the ovaries, as it was a substance which entered into the composition of the normal blood of men and women. Spermine says the author, possesses to a great degree the property of accelerating the process of oxidation, which fact is demonstrated by the following statements:

1. In the presence of spermine metallic magnesium may be oxidized by a solution of the chloride of any one of several metals (copper chloride and gold chloride, for example); moreover, this oxidation, instead of being at the expense of the oxygen of air, is at the expense of the oxygen of water, which is decomposed by the catalytic action of spermine.

2. Blood which has lost its oxidative qualities by the action of chloroform, protoxide of nitrogen, etc., may regain them if a small quantity of spermine is added.

3. Professor Tarchanoff's experiments on animals (of which the internal process of oxidation was diminished partly by section of the spinal cord, partly by poisoning with chloroform, alcohol, etc.) demonstrated that the tonic effect of spermine showed itself accurately in the cases where the intra-organic process of oxidation was diminished.

4. The therapeutic observations of more than fifty writers demonstrate that the dynamogenic effects of spermine show themselves in cases where the affection is due to a self-intoxication; for example, in anemia, neurasthenia, scurvy, diabetes, cachexia, etc.

5. The analysis of the urine before and after subcutaneous injections of spermine shows that the coefficient of oxidation is exaggerated.

6. Experiments which have demonstrated the effect of spermine on the biological and chemical qualities of the choleraic vibrio prove that the process of reduction (the appearance of cholera red and the formation of ptomaines), due to choleraic bacilli, is suppressed in the presence of spermine.

These facts, says Dr. Pöhl, prove that spermine represents that substance in the organism which sustains the intra-organic process of oxidation, that which is known as intracellular respiration. The cellular changes give rise to incomplete products of oxidation (of regressive metamorphosis), of which the leucomaines constitute the large part, according to Armand Gautier. Under normal conditions the leucomaines undergo oxidation owing to spermine, and are partly burned, partly eliminated by the veins and the other emunctories. But in abnormal conditions, when oxidation is imperfect, the leucomaines accumulate and prevent the tissues from performing their functions in a normal manner. The first consequence of this diminution of oxidation would be self-intoxication, which is an efficient cause of a great variety of morbid conditions and a predisposing cause of the appearance of infectious diseases. Consequently, in normal oxidation (in the activity of spermine) lies the defense of the organism against self-intoxication—that is, against a long list of maladies.

Spermine shows its catalytic effects only when it is in a soluble condition (*corpora non agunt nisi fluida*). In some cases spermine is transformed into an inactive substance, taking the form of an insoluble phosphate, of which the crystalline modification has been known for a long time—these are the Charcot-Leyden crystals. This phenomenon has a place in the organism when the alkalinity of the blood is diminished, and, as the destruction of lecithin and of nuclein is accompanied with the formation of phosphoric acid, spermine is transformed in these conditions into phosphate of spermine, which is insoluble and inactive. The intra-organic process of oxidation and the effects of spermine are in reciprocal and direct relation with the alkalinity of the blood. In these cases of self-intoxication, subcutaneous injections of active spermine soluble with the increase of the alkalinity of the blood (by the use of Vichy, etc.) always produce a therapeutic effect.

Our organism, says the author, certainly elaborates, in addition to spermine, other substances having curative qualities, and the *vis medicatrix nature* is probably proportionate to the formation of such products. The immunity of the organism against many diseases probably consists in the normal energy of the process of oxidation. Dr. Pöhl concludes, then, that, if life is an incessant struggle against death, spermine is probably, for the tissues, one of the most efficacious agents in this resistance.

Brown-Séguard is dead, and it will be allowed that he has the *monumentum cere perennius* in enough original work in physiology and neurology to support his fame; but it would seem that the little diversion wherewith he amused himself during the few later years of his life has come to stay, and is really a solid contribution to science.

The fads shall fall away, tuberculine
Grow dim with age, and cerebrine decay;
But thou shalt flourish in immortal youth
Unhurt amid the wars of therapy,
The wreck of nostrums, and the crush of pills.

KENTUCKY STATE SOCIETY.

By no fault of ours the minutes and transactions of the State Society are egregiously tardy in issue. We shall open the next issue with the first installment of this Society matter and continue the publication serially till the contract is completed. We especially request that such Fellows as have not sent their papers to the publication committee do so at once, that the volume of Transactions be not delayed in publication. The papers should be addressed to Dr. H. A. Cottell, 1102 Sixth Street, Louisville, Ky.

Notes and Queries.

"HAIL, HORRORS!"—Macbeth "supped full with horrors." But could he return and live in modern times, he might have even a richer banquet than his first; for a Frenchman, M. Gelineau, has just published a volume upon "Unhealthy Fears, or Phobiæ." These curious and uncomfortable states of mind were first described by Benedict and Westphall; but there are many species, and M. Gelineau has carefully compiled a complete list for the benefit of his shuddering and yet fear-bound reader.

They are aichmophobia, or fear of sharp points, as of needles or pins; agoraphobia, or fear of open spaces, with a sub-variety, thalassophobia, or dread of the ocean; astrophobia, or fear of the stars and celestial space; claustrophobia, or fear of enclosed spaces; mysophobia, or fear of filth; hematophobia, dread of blood; necrophobia, or horror of dead bodies; thanatophobia, or dread of death; anthrophobia, or fear of crowds; monophobia, a fear of being left in solitude; bacillophobia, or fear of microbes; siderodromophobia, or dread of railways; pathophobia, or fear of disease, with many subdivisions, of which the most important and most frequent are anginophobia (fear of angina pectoris), ataxophobia, syphilophobia, lyssophobia (or fear of rabies), spermatophobia and zoöphobia (or fear of animals), which in its turn has subdivisions for cats, dogs, horses, mice, etc., *ad totum catalogum animalium*.

Returning to the list, we find still kleptophobia, fear of becoming a kleptomaniac; pyrophobia, fear of matches; stasophobia, dread of standing upright; aërophobia, or dread of draughts of air; acrophobia, fear of high places; toxicophobia, a fear of poisons; demonophobia, a dread of the devil (this is rather rare).

There are also a very great number of phobiæ peculiar to certain professional persons, as physicians, artists, merchants, which have yet to be Hellenized and classified. The culminating fear, however, the quintessence of dread, is the fear of having a fear, the dread of a dread, or phobophobia. *Boston Medical and Surgical Journal.*

TRANSFUSION OF BLOOD IN ITS LEGAL ASPECTS.—Our Paris letter of June 23d contained a report of an interesting trial that had taken place in France. It being necessary to resort to transfusion in a desperate case of illness, the servant of the patient volunteered, or consented, to supply the blood. Some time afterward the giver fell sick, and, attributing his disease to the sacrifice he had made for his master, sued the latter for 60,000 francs damages. Experts were appointed to examine and report on the case, but in the interval the plaintiff died. The action was continued by the widow at the Civil Tribunal of the Seine, where the court gave judgment for the defendant. The decision was obviously equitable if, as we assume, compensation was claimed simply on the ground that the illness resulted from the operation and from the effects of the loss of blood. When a person is asked to furnish blood for the purpose of transfusion it is the duty of the receiver, by himself or agent, to state precisely the possible dangers attending venesection, and to insure that reasonable care is taken to prevent untoward consequences, that is, the wound should be made under strict antiseptic precautions, and the patient skillfully attended until it has soundly healed. Of course, a person could stipulate that he should be remunerated for the loss of employment during enforced idleness and compensated for incapacity arising from an unforeseen accident attendant on the operation, but, failing this, he has neither the moral right nor legal title to recover a money equivalent. His voluntary act of self-sacrifice is a tribute to humanity and should not be used as a lever to procure self-aggrandizement. In the case under consideration the man died from cancer of the stomach, certainly not caused, and probably not aggravated, by abstraction of a few ounces of blood.—*London Lancet.*

CEREBRAL HEMORRHAGE IN A CHILD SEVEN YEARS OF AGE.—The *Lancet*, 3674, page 207, in the hospital notes, gives a case of cerebral hemorrhage in a child following mitral disease, admitted to the hospital October 24, 1893. There was some ascites, also anasarca of the legs. Early in November the urine was much diminished in quantity, the child at first fretful, then drowsy, and finally quite comatose. There were lucid intervals. Left-sided convulsions began in a day or two. The head was turned toward the left, and there was conjugate deviation of the eyeballs in the same direction. There were violent twitchings of the left side of the face, particularly of the lower muscles of the left arm. The left leg twitched very slightly. The pupils were dilated, and the pulse was rather hard. A hot bath always put an end to these attacks. The patient died, and *post-mortem* showed the

vessels running in the pia mater about the upper part of the fissure of Rolando, the longitudinal sinus, and some veins over the cerebellum were thrombosed. About half an inch below the surface of the brain, at the upper part of the right fissure of Rolando, there was a round, dark clot, the size of a large cherry.

Cerebral hemorrhage in children is an unusual occurrence, and in this case the symptoms were possibly dependent partly on the thrombosis of the sinus and veins, for the clot was of small size, the influence of age and the changes in the vascular system which it produces are well known, and we rarely find cerebral hemorrhage in a patient under twenty years of age.

CALIFORNIAN WINES.—The rapid growth and development of viniculture in California is proof of the popularity which these wines are deservedly attaining. The industry is still, of course, in its infancy, and the wine produced, though comparing very favorably with the wines reared in France, where the land has been so long under cultivation and where the art has received centuries of study, can not be expected to equal their delicacy. Nevertheless, the wines of California, types of which known as the "big tree" brand we have recently examined, possess sound qualities, of which tone and vigor are predominant. Their chemical composition, as will be seen from the following results of analysis, closely resembles the products of better known and longer established vineyards. Chablis, No. 5: alcohol, by weight 10 per cent, by volume 12.40 per cent; extractives, 2.26 per cent; mineral matter, 0.26 per cent. Burgundy, No. 12: alcohol, by weight 9.71 per cent, by volume 12.5 per cent; extractives, 3.06 per cent; ash, 0.40 per cent. Hock, No. 7 (Johannesberg Riesling): alcohol, by weight 8.36 per cent, by volume 10.33 per cent; extractives, 3.04 per cent; ash, 0.23 per cent. It will occur to many that while the price of these wines is moderate, yet the cost and conditions of production are so favorable as to enable the grower to place an undoubtedly genuine article and an abundant supply on the market.—*London Lancet*.

TUBERCULOUS COWS.—The attempt was recently made to smuggle into New York City and butcher two cows in an advanced stage of tuberculosis, but fortunately the meat inspectors discovered the matter in time. Both animals were promptly killed, and the autopsy showed not only that the lungs were filled with tuberculous deposits, but that the liver, intestines, and other abdominal viscera were frightfully diseased. It was found that one of the cows came from Brewster, on the Harlem Railroad, and the other from Orange County, and that the milk from one of them had been sent regularly to the city. Sanitary superintendent reported the cases to the State Commissioner on Tuberculosis for investigation.

THE STREET-CRYING NUISANCE.—Not a few social grievances flourish in luxuriant growth untrimmed by the pruning-hook of reform simply because they do not greatly injure, though they may greatly annoy, a patient

people. Among such may be numbered the practice of street-crying. This custom is, of course, not of yesterday. Neither is it without some recommendations. If not the most respectable, it is, within due limits, a legitimate business method. Unfortunately it has also become through excess and mismanagement a generally admitted nuisance. It is not merely the comfort and convenience of householders which are affected by it. The noisy clamor of advertisement is in certain cases positively injurious. If the sick man, thankful to snatch, if he can, broken intervals of sleep, is driven to employ expedients which deaden the sound of passing traffic and even to muffle the knocker on his door, how essential must it be that the shrill street-cry should not reach his ear. There is no question that the abatement of this evil is in every way desirable.—*London Lancet.*

THE ANCIENT USE OF STERILIZED WATER.—A correspondent sends to the Dietetic and Hygienic Gazette the following interesting quotation from a recent book on Media, Babylon, and Persia, by Ragozin: "As soon as Susa became the principal city and capital of the Persian Empire, its river, the Choaspes, had the honor of supplying the kings with the only drinking-water they would use. Kyros first instituted this custom, which was religiously kept up by his successors. 'Whenever the great king travels,' Herodotus reports, 'he is attended by a number of four-wheeled cars drawn by mules, in which the Choaspes water, ready boiled for use, and stored in flagons of silver, is moved with him from place to place.' It is amusing to find so early an instance of this hygienic precaution, the boiling of water, which we are wont to consider so very modern."

ADVANCED CEREBRAL LOCALIZATION.—A Philadelphia physician has made so thorough a study of brain topography that he makes the following definite statement: "The corpus callosum is the seat of the soul, the imperishable mind, and is the great reservoir and storehouse of electricity, which is abstracted from the blood in the arteries and conveyed through the nerves up the spinal cord to the corpus callosum." Inasmuch as formerly the mind resided in the sella turcica, it must be that, like the sun, the soul "do move."

SHORTHAND IN MEDICINE.—In order to promote the use of shorthand by medical students and practitioners, by enabling them to increase their knowledge at the same time of the art and of their profession, a small sheet of clinical teaching in lithographed phonetic shorthand has been issued by a London firm. The paper, which will be continued if found to fill a need, contains reports of clinical lectures by Dr. Gowers, and other prominent London clinicians.

PROFESSOR OF PATHOLOGY IN THE UNIVERSITY OF GLASGOW.—Dr. Joseph Coats has been appointed Professor of Pathology in the University of Glasgow, the appointment to date from October 1, 1894.

Special Notices.

THERAPEUTIC USES OF EUROPHEN.—The general applications of EUROPHEN are those which have ordinarily been recognized as suitable for iodoform and its congeners. It is of interest to make a brief selection from the many conditions in which the evidence is very abundant and decided as to its marked superiority.

I. In inflammations of the conjunctiva, keratitis, corneal ulcers, trauma, and operation wounds of the eye EUROPHEN rapidly relieves the pain and induces healing. Among aural troubles it has been found of especial advantage in otitis media suppurativa.

II. In simple atrophic rhinitis and ozena the application of EUROPHEN in the form of an ointment excites secretion and relieves the feeling of dryness and heat, while in rhinitis with hypersecretion its use, especially in the form of the powder, diminishes the discharge and arouses a healthy action. Excellent effects are also obtained from EUROPHEN in nasal eczema, ulcerations in the nose, particularly those of a specific character, epistaxis, and after operations in the nose and throat, where it acts both as a hemostatic and antiseptic. In laryngeal phthisis its use is highly recommended.

III. In chronic ulcers of the leg, burns and bedsores, healthy granulation and cicatrization are promptly effected, while in cases of tuberculous ulcers and ulcerating lupus healing is frequently induced. In ulcerations of a venereal character EUROPHEN has a special action, and it acts effectively in chancroids, chancres, open buboes, condylomata, gummatous ulcers, etc. A large variety of cutaneous diseases are cured or benefited by the use of EUROPHEN, among which may be mentioned, lupus vulgaris, the sycoses, rosacea, facial erysipelas, dermatitis from rhus poisoning, seborrhea, chronic eczema, and psoriasis.

IV. In the treatment of wounds—accidental or resulting from operation—EUROPHEN is an admirable dressing, forming an impervious adhesive and antiseptic covering over the injured parts, under which healing takes place promptly. In dentistry its freedom from odor, lightness, adherent and antiseptic properties make it an especially eligible remedy.

CELERINA is indicated in nervous dyspepsia, accompanied by severe headache, nausea, acute pain in the epigastrium, etc.

LABOR SAVING: The American Medical Publishers' Association is prepared to furnish carefully revised lists, set by the Mergenthaler Linotype Machine, and printed upon either plain or adhesive paper, for use in addressing wrappers, envelopes, postal cards, etc., as follows:

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

TREATMENT OF ACUTE LOBAR PNEUMONIA.*

BY JOHN A. LEWIS, A. M., M. D.

In very many respects a false faith is preferable to no faith at all. The medical writer of the first half of the present century could approach the subject of the treatment of acute lobar pneumonia with a much higher degree of confidence than can any medical writer of the present day. The explanation of this seemingly remarkable statement finds its solution in the fact that the pathology of pneumonia at that time was considered as fixed and settled beyond the shadow of controversy.

A physician then would just as soon have doubted his own existence as to have questioned the fact that in the treatment of pneumonia he had to combat a real pneumonitis, a true inflammation of the lung substance, accompanied by a train of symptoms which were entirely dependent upon and secondary to the lung inflammation.

The physical and rational symptoms of the disease clearly pointed to this local condition, and *post-mortem* examinations revealed such to be the truth. In the *post-mortem* revelations he found a picture of acute inflammation as typical as could possibly be furnished.

Thus in pneumonia not a single symptom of inflammation, as taught at that day, was absent; "heat, pain, redness, swelling" were all found. His pathology thus settled, he advanced to the work of treatment intel-

*Read at the June meeting of the Kentucky State Medical Society, 1894. For discussion see page 109.

ligerly, confidently, systematically. He believed something, hence he did something.

He selected his remedies, had faith in them, he double-shotted his guns and turned them loose on the enemy in terrific style.

And, no matter what his mistakes may have been, none can fail to honor him for the courage he exhibited in standing by his convictions.

Those were the days of heroic medicine ; the people believed in the doctor and the doctor believed in medicine. He confidently believed that he possessed remedies by the means of which he could cure disease, and that without the administration of the proper medicine disease must go on from bad to worse.

He failed to recognize in nature a great physician.

A single glance at the armamentarium with which he attacked pneumonia will be sufficient to convince the most skeptical of his confidence in his therapeutic resources.

Blood-letting, antimony, calomel, opium, these were his dogs of war. Nowadays this strong combination would not long have escaped the euphonious soubriquet of the Big Four.

If some master hand should undertake to place upon canvas a picture which might in some measure portray the confidence of the medical profession in the therapeutic resources of the healing art in this heroic age of medicine, I do not think he would go far wrong in painting the picture of one of the "Old Phlebotomy Heroes" standing erect over the blanched and still bleeding form of some frail patient, his lancet tinged with the crimson of the median basilic, pointing to the heavens, across which was plainly written the inscription, "*In hoc signo vinces.*"

In those days men were bled, starved, blistered, salivated. Is it strange that human nature soon revolted against such extreme methods? Extremism always carries within itself the seeds of its own destruction. It took the Bastille to incite the French Revolution, and it took the antiphlogistic age with its "*strong medicines*" to set in motion a revolution which completely overthrew the established methods of treatment of this, the Iron Age of the healing art. You and I have not yet heard, nor will we ever hear, the last of "strong medicine;" it is the specter which still haunts our footsteps and will not down. Truly, the "fathers ate grapes and the children's teeth are on edge." The years which have come and gone since the revolution in medicine began have witnessed many changes in the treatment of pneumonia. Under the

guiding hand of such masters as Todd, J. Hughes Bennett, Nehmeyer, Chambers, and others we have passed successively through the restorative, expectant, and the antiseptic methods.

Bleeding has become a lost art; antimony found a substitute in *veratrum viride* and aconite.

Whisky, quinine, and *digitalis* were found absolutely necessary to meet what the older physicians were pleased to call a change of type in disease. Salines replaced calomel, and blisters became almost obsolete. In the field of regimen the revolution has been no less marked; gruel, skimmed milk, chicken-water have been replaced by stronger diet of beef tea, cream punch, egg-nogg, and various forms of concentrated and nourishing foods.

I have thus reviewed hurriedly the various changes through which the treatment of pneumonia has passed in the last half century, with the hope that it might prove of value to us in confronting the problem of treatment as it presents itself to us to-day.

Upon a close investigation of the treatment of pneumonia, as taught by the best writers, that I might be able to present to you in concise and tangible form the latest and most improved methods, I found, just as I expected, that a transitional pathology had given rise to many and widely different plans of treatment; indeed the plans advocated are almost as numerous as the writers, scarcely any two of them agreeing.

Finding myself discouraged in this direction, it occurred to me that I might get some index as to the most successful methods of treatment from the tables of statistics which have been compiled from time to time. But here again I found myself baffled. Statistics furnished me no light whatever as to the best plan of treatment. Indeed, about the only thing which they incontrovertibly establish is the fact that the rate of mortality in hospital practice under all plans of treatment has averaged nearly or quite 25 per cent.

This seemed very high to me, and I am quite sure that the private practitioners will join me in the statement that our mortality is hardly half so high. I do not believe that it would reach more than 10 per cent; but this statement is made without any accurate figures, and all recognize the fact that one may be readily mistaken.

It is a long time before a private practitioner has one hundred cases of pneumonia, and it is very difficult to remember how many of these die; it is very much easier to remember how many live—the living are reminders of themselves, the dead are so reticent upon all subjects.

Most of you, I am sure, will readily recall that familiar figure in every neighborhood of the physician who has never lost a case of pneumonia—uncomplicated, of course. What a godsend complications sometimes are.

I also found that many of our best authorities claim that the mortality in pneumonia has remained about the same under all plans of treatment, and that the disease really requires no treatment at all, but should be left to nature as the best physician. I felt so discouraged by these investigations that I was about to sum up the whole matter and dismiss the subject of treatment of pneumonia with the scriptural injunction, "Stand still and see the salvation of the Lord."

But upon more mature reflection I can but feel that we have some very valuable therapeutic resources which, if rationally applied to the relief of the dangerous tendencies in pneumonia, can not fail to alleviate distress, lessen mortality, and hasten convalescence.

Juergensen wrote, in 1875, "Croupous pneumonia (synonymous with acute lobar pneumonia) is a constitutional disease, and is not dependent upon a local cause. The pulmonary inflammation is merely the chief symptom, and the morbid phenomena are not due to the local affection. The hypothesis of a morbid cause is indispensable." Nothing could have been truer; to-day nearly all the authorities place pneumonia just where Juergensen placed it, among the acute infectious diseases, and they recognize the diplococcus pneumoniæ of Fränkel as the pathogenic micro-organism which produces the disease. Osler defines pneumonia to be "an infectious disease characterized by inflammation of the lungs, accompanied by constitutional disturbances of varying intensity."

Now in the treatment of pneumonia, in connection with the pathology stated above, there are certain facts and certain dangerous tendencies attending the course of the disease which it is necessary to keep in mind if we would battle intelligently and successfully with the disease:

1. The disease is an infectious fever and has a definite course to run.
2. Its course is a short one, usually ending in an abrupt crisis about the seventh day.
3. Our plain duty is to keep life in the patient until nature effects the cure.
4. No routine plan of treatment can be adopted suited to every case.
5. The majority of deaths result from heart exhaustion.

6. Rapid action of the heart together with the increased power required to overcome the resistance in the pulmonary circulation are the two main factors producing heart exhaustion.

7. The fever is the result of the growth of bacteria, attended by the formation of poisonous chemical products in the system.

8. As yet we have no safe or certain agent by which we can destroy the diplococcus pneumoniæ in the human body.

9. An over-distended right ventricle from pulmonary obstruction is one of the greatest sources of danger.

10. Pain, cough, sleeplessness are extremely wearing upon the vital forces of the patient.

With the above facts kept constantly in view let us attempt to apply our remedial agents to the treatment of the disease. A patient suffering from pneumonia should be placed comfortably in bed in a well-ventilated room with a temperature of 65° to 70° Fahrenheit. He should be allowed no company except his nurse, all conversation interdicted, and perfect quiet from noise and disturbance of every kind enjoined.

Perfect rest of mind and body is very essential, that every vital energy may be husbanded. An active purgative should be given, it matters not whether it be a saline or a dose of calomel; the object is, so to speak, to clear the deck for action. The patient should be allowed all the cold water he may desire to allay his thirst. His diet should be plain, nutritious, and easily digested, in moderate quantities. Milk, soup, eggs, rice, oatmeal constitute the best forms of regimen. For one I do not lay so much stress upon feeding the patient so fully and so systematically as in fevers. An attack of pneumonia is usually of short duration, and as the majority of the human race, in my opinion, are constant sufferers from the half-digested products of overeating, which can be best gotten rid of by a week's starvation, I do not allow myself to be made miserable if my patient eats very sparingly for several days. The chest should be enveloped in moist, hot applications for two reasons: first, because it relieves pain and adds greatly to the comfort of the patient; second, because it determines the blood to the surface by relaxing the capillaries, relieving thereby the tendency to overdistension of the right heart.

Spongio-piline is a most excellent application for this purpose; it is clean, light, and retains its heat. I know of no superior form of application of moist heat. Other methods of application are largely in use,

consisting of poultices of various kinds. The oiled silk jacket makes a light and efficient application.

If the patient suffers much pain during the first stage of pneumonia, some form of opium should be used to allay it. The best forms for its use are the hypodermic injection of morphia, Dover's powders, or codeine. Pain, cough, sleeplessness are the little foxes which harass and worry a patient and greatly exhaust the vital power. You can not more worthily bestow your attention than in relieving these trifles. If there is any contra-indication to the use of opium, then sulfonal, trional, bromides, or chloral may be used, as judgment dictates. In the later stages of pneumonia opium is a dangerous remedy, especially if cyanosis is threatening, and if used at all it must be used with the greatest caution. If you are tempted to use it freely you will regret it with a life-long regret. If pain continues late in the course of the disease apply a blister over the painful region, unless it be upon the back. I should hesitate some time before applying a blister to the only place upon which an exhausted patient can lie with any degree of comfort. The blister should not be applied with a view of hastening resolution, but to relieve obstinate pain. A blister will do this when nothing else will. I speak confidently upon this point from experience. But by far the most important item in the treatment of pneumonia is the control of the rapid heart's action. The heart is the muscular pump of the body which forces the blood through the circulatory channels, and is capable of any amount of endurance at any thing like its ordinary rate of action, but when driven day and night at a rate closely approximating double its natural beat it can not long stand the strain.

If we can by the use of some remedy so control this rapid beat, resting the heart as it were, without materially weakening the muscular power of the organ, we have certainly made great gain. In *veratrum viride* we have not only a very sure but a very safe remedy for reaching this very desirable end.

According to some of the best authorities *veratrum* is not a heart depressant, but rather a heart stimulant; but, granting that it is a heart depressant, it is certainly the least objectionable and the safest of all that class of remedies. In my estimation it is perfectly safe; it slows the heart, softens and strengthens its beat, and slightly lowers temperature. It is best given in the form of the fluid extract, in two to four-drop doses every two hours until the pulse has been brought down to about 80. There it should be held by increasing or lessening the dose

as may be found necessary. If the medicine should produce nausea, give five drops tincture of opium fifteen minutes before giving the other dose. If the patient should get too deeply under its influence it will be manifested by clammy perspiration, nausea, slow pulse—give whisky and leave off a few doses of the remedy. The effects pass off very quickly and need cause no alarm whatever.

The remedy should be kept up through the first stage of the disease, and longer if it seems to be doing good work.

Aconite has been and is still much used for the same purpose. I can not believe it so safe or so effective a remedy as veratrum. Dr. Delafield highly recommends the use of $\frac{1}{400}$ grain aconitin combined with $\frac{1}{500}$ grain digitalin for the same purpose, that of reducing rapid heart's action, and for lowering temperature, advising use of whisky when undue depression arises. In addition to the use of veratrum to bring down the pulse, if the temperature still runs dangerously high, the use of some antipyretic means may be necessary. I have had most excellent results from the administration of phenacetine, or antifebrine combined with quinine in equal quantities, giving from 5 to 8 grains of the combination at a dose, from four to six hours apart.

Generally the dose need not be administered more than once in six hours. If you desire to see these antipyretics at their best, then combine them with quinine. The quinine has no part in the reduction of the fever, but simply keeps the patient from any tendency to collapse, or coldness or clamminess of the skin.

The antipyretics act by reducing heat production and increasing heat radiation. By these remedies the temperature is reduced, the skin moistened, nerve tension lowered, restlessness calmed, sleep produced, and this is accomplished at little or no expenditure of vital power.

The antipyretic most commonly used in hospital practice is cold applied to chest in some form; it is applied as a cold pack, or by means of an ice-coil or an ice-cradle. The method used in the London Hospital by Dr. Fenwick is the ice-cradle, and seems to me to be the best method of applying cold. Dr. Fenwick reports forty cases treated by cold applications in eighteen months with a mortality of 7 per cent. This certainly speaks well for this plan of treatment. For obvious reasons this method of reducing temperature has been very little used outside the hospitals. Antipyretic means should only be used in the earlier stages of pneumonia. As the disease progresses and there is evidence of heart failure and an accumulation of blood in right heart,

the right ventricle receiving the blood faster than it can force it through the pulmonary circulation, we are confronted with a very grave problem. In this condition blood-letting would seem to be the most promising remedy, but experience seems to prove that the relief afforded is only temporary, and is gained at the expense of the vital forces. For a long time digitalis was the remedy in most common use for the relief of this dangerous condition; and even now the profession very generally adhere to its use to tone up the muscular power of the heart in its unequal battle with the disease. But many of the highest authorities question the advisability of its use, and indeed strongly condemn it as a dangerous remedy in an overdistended condition of the right ventricle; the danger is heart paralysis. Those who look upon it as dangerous in this condition claim that digitalis acts most forcibly upon the arteries and arterioles, contracting their caliber, thus forcing the blood back upon an already overdistended heart.

The other side claim for digitalis a direct action upon the cardiac ganglia, increasing actually the muscular power of the heart itself. If this be true, it certainly goes very far toward overcoming the other dangerous tendency accorded to the drug. But in this state of doubt it behooves us to proceed very cautiously.

Dr. Fenwick has reported some very disastrous results in the treatment of pneumonia by digitalis. He reports forty-three cases and nineteen deaths. This would seem to be a very strong condemnation of its use. But right on the heels of this comes the statement of Dr. Petresco, who asserts that pneumonia can be cut short by the administration of digitalis in very large doses in the onset of the disease. He gives 75 to 100 grains infusion of the leaves of digitalis in twenty-four hours, continuing it three or four days without any bad effect. He claims to cut the course short in forty-eight hours, obtaining sudden and absolute reduction of temperature to normal, accompanied with reduction of fever, general improvement in patient's condition; pain and cough very soon diminish, and the healing process goes on to completion. This is claiming a great deal, and, if it proves to be true, certainly is a valuable addition to our knowledge.

Perhaps alcohol is the remedy most relied upon to relieve the tendency toward heart failure. This remedy not only stimulates the muscular energy of the heart, but by its power to paralyze the capillaries it determines the blood to the surface, thus relieving the overdistended heart. We have several other valuable remedies in this condition not

open to the objections which are alleged against digitalis. These remedies are strophanthus, strychnine, caffein. A flagging heart may be spurred into greater action by these cardiac stimulants.

Expectorants have been almost discarded from the treatment of pneumonia under the belief that expectoration played little or no part in clearing up the hepatized lung. This may be true, and yet in my observation those patients who expectorate freely and easily do best. And my own experience leads me to say this much in their behalf: in the later stages of pneumonia, when cough is harassing and pain present, an expectorant something after the order of the following prescription will give great comfort: Oil peppermint (not spirits), 1 gtt.; codeine, $\frac{1}{8}$ grain; ammonium chloride, 5 grains; syrup tolu, 1 dram; to be given every two or three hours.

I have thus laid before you a plan of treatment which I am aware is not suited to all cases of pneumonia, and has many defects and inconsistencies, not filling the measure of scientific accuracy, and yet I trust you may find something in it of practical value.

Before concluding this paper I desire very briefly to refer to some practical investigations, as they relate to immunity and the treatment of pneumonia, recently published by the Klemperer Brothers, and which have attracted a great deal of attention. Since the investigations of Pasteur, and later of Koch, establishing beyond doubt the bacterial origin of many diseases in both man and beast, there has been an increasing and persistent effort to secure curative substances from among the cultured products of bacteria. You will readily recall the efforts which have been made in this direction in chicken cholera, anthrax, cholera asiatica, tuberculosis, diphtheria, tetanus, hydrophobia, etc. Notwithstanding the diligent work which has been done in searching for remedies for these diseases along the line above indicated, but little of real practical value has as yet been achieved. But the eyes of the medical profession, indeed the eyes of the world, are looking very confidently to this interesting and well-worked field for important discoveries in the near future.

The Klemperer Brothers have recently created quite a stir among the bacteriologists by their reported experiments in the treatment and prevention of pneumonia by what is known as the "blood serum therapy." There is nothing new in their effort to render patients immune from attacks of pneumonia by the subcutaneous injection of attenuated cultures of that disease. They claim to have rendered ani-

imals entirely immune to attacks of the disease, and that this immunity sometimes has lasted for six months. But the claim that they are able to produce a crisis in pneumonia by the injection of serum of the blood of patients who have passed the crisis in the disease is new and important. The claim is based upon the theory advanced by them, that the diplococcus pneumoniæ, which is the bacteria that causes pneumonia, produces in the blood a poisonous albumen which they denominate pneumotoxin, which when introduced into the circulation of an animal brings about an elevation of temperature and the subsequent production in the body of a substance called antipneumotoxin, which possesses the power of neutralizing the poisonous albumen or pneumotoxin.

The two poisons go on generating in the blood, the one poisoning the system, producing fever, delirium, and debility. This continues until the antipneumotoxin has increased sufficiently to have gained the mastery; the poisonous effects of the pneumotoxin are neutralized, the fever subsides, and thus the crisis in pneumonia is brought about. Thus it would seem that nature has generously provided with the bane the antidote.

They have further demonstrated, at least to their own satisfaction, that the serum of blood from patients who have passed the crisis in pneumonia contains the antipneumotoxin, and is capable of curing pneumonia when injected into affected animals.

In this way they were able to bring about an artificial crisis in pneumonia. This is a very plausible theory, and, if verified, certainly adds a very strong weapon to our armamentarium.

Now, in conclusion, let me add one word of caution against haste in adopting new theories and accepting new discoveries as true before they have been subjected to the severest test.

We are evidently about entering upon a new era as regards pathology and treatment of pneumonia. Let us recollect the lesson which has been handed down to us by our predecessors of the antiphlogistic school. Do not forget that they were men in every respect our equals; they were astute, honest workers after truth. They were perfectly sure they were right, yet in the light of subsequent history they were in all probability all wrong.

Let us proceed slowly, step by step, accepting nothing as true until verified. Even so insignificant a thing as a pathogenic micro-organism should be passed upon with exceeding caution. Be slow to herald

every new theory abroad as a great discovery before it has been thoroughly tested.

It is now a matter of history that twice within the last decade the medical van, feeling sure that they had sighted the shimmering waters of the Euxine, shouted, "The sea! the sea!" and twice in humiliation and bitter disappointment it has been necessary to pass the word back to the columns eagerly pressing on, "It is only the mirage." We have seen the luster of the names of both Koch and Séquard dimmed by the too previous announcements of what was supposed to be grand medical discoveries. It is to be sincerely hoped that history will not soon repeat itself in this direction.

My parting injunction is, Try all things, hold fast to that which is good.

GEORGETOWN, KY.

PROPHECY AND INSANITY.

BY JAMES WEIR, JR., M. D.

Throughout the whole history of the world a dispassionate survey of prophecy, wherever it is found, shows it always to be engrafted on or allied with insanity. In fact this relationship was early recognized, and in many languages the same word is used to designate the prophet and the madman. When the world was young the mind of man was infantile and undeveloped. *Psychos* itself was in its babyhood, and, like a child, exceedingly credulous. Madmen, elevated by maniacal erethism, gave utterance to unheard of propositions, and men in their ignorance and credulity accepted these insane dicta as divine inspirations and made prophets of men who were simply the victims of mental abnormalities. To this day the savage regards the imbecile as the ward of heaven, while all the semi-civilized races of men consider the religious maniac as a holy and authoritative messenger of God. The Moors declare that the minds of the insane are with God in heaven, and that when they prophesy their every utterance is a direct inspiration. Their holy santons or prophets are commonly insane, and are allowed every license.

Not long since a newly-made bride was ravished by a santon in the city of Tunis, whereupon her husband was congratulated on his good fortune by all his acquaintances. The half-insane and wholly bestial

priests of the Naivs and kindred races of people in India are invited to the nuptial couch by marriageable maidens, who consider it the greatest honor to yield up their virginity in the embraces of these men of God.

As far back in the past as history reaches we find abundant proof of the toleration and even worship of the religious lunatic. Even in this enlightened age we have our prophets and even our Christs and Mothers of God who have their followers and disciples, atavistic congeners of semi-civilized or savage peoples. The ancient Hebrews used the same word to designate prophet and madman.

We are told that Saul was weighed down by an evil spirit and prophesied (raved); in the midst of this paroxysm he tried to kill David (homicidal mania). Saul had had attacks before, for we are told that he was seized with the spirit of prophecy and astonished his friends by his vagaries, who asked one another, "Is Saul among the prophets?" or, in other words, "Has Saul become insane?" He had these attacks repeatedly while he was king, and only the soothing melodies evoked from the harp of David could calm him. David feigned madness to escape Achish, who remarked that he already had as many madmen (*nabi*) about him as he desired. Here the word *nabi* (prophet) is used in the sense of madman.

Some of the prophets of the Old Testament seem to give evidences of insanity, otherwise how can we account for their strange vagaries and nonsensical performances. Hosea married a prostitute because he said God told him to do so. Ezekiel made a hole in the wall of his house through which he removed his furniture instead of through the door. Isaiah stripped himself naked and exposed his person. Jeremiah took a long journey, and at its end hid a linen girdle in a hole in a rock. He returned home, and after a time made the same journey and found the girdle rotten and good-for-nothing. * * * A close reading and literal interpretation of most of them will show that these prophets had reference to their immediate future, and that their prophesies were religio-political in their significance. * * *

This, from a girl of thirteen, resembles some prophetic visions: "I saw the city of God from a high tower in its midst. It was beautiful beyond description. The streets were lined with palaces, and everywhere beautiful and strange flowers met my eyes. The people were transported from place to place on winged carriages. I saw the most beautiful horses, dogs, and cats, but all of them had three heads, two in front and one behind. As I stood gazing about me I heard a

voice say, 'Take her and set her in the great hall and show her the abomination of desolation.' Immediately I found myself in a great hall seated on a platform. The hall was filled with people, and these people, both men and women, were naked. They were all playing dominoes. Some of them I knew. I recognized Mr. Cleveland, Mr. Carlisle, Mr. Reed, Mr. Ingalls, Mrs. B., Miss S., Mrs. T., Mr. R., Sallie B., Jennie U., Frank L., and dozens of others. The same voice then said, 'Show her a sign of my wrath.' Straightway a giant angel with ten heads and twenty arms flew through the hall and scattered grains of rice. These grains of rice turned to tigers as I looked, tigers with three heads, which fell upon the people and devoured them. Then the voice said, 'Go tell this to the people, for you are a prophetess and a daughter of God.' "

"You were asleep, Nettie, and dreamed all this."

"No, indeed! I was wide awake. Why, Doctor, I have just this moment come from heaven!"

Two thousand years ago this child would have been considered a prophetess, and divine honors would have been paid her by her disciples and followers. Three hundred years ago she might have had an army at her beck and call, and, like Joan of Arc, might have formed a part of the world's history. To-day science regards her simply as a lunatic; fortunately one that can be cured, for her lunacy results from mental disorder incident to the establishment of a natural function peculiar to her sex, and will disappear sooner or later.

Visions and dreams rule and direct the lives of all savages, and also in semi-civilized races these same psychical phenomena have great weight. Joseph was called into the presence of Pharaoh and treated with great honor because of his ability to interpret dreams. Everywhere throughout the whole Bible we find mention of dreams and visions, and in fact some of the most startling political modifications in the evolution of the civilized world have been the direct results of the influence of dreams. Even at the present time hundreds of enlightened and otherwise sane people place the utmost confidence in dreams, and govern their actions accordingly. This is the result of psychical atavism, a reversion back to ancestral beliefs and customs.

Let us now glance at the comparatively recent prophets and saints and see if we can not find marked evidences of insanity in these holy men. It seems strange, yet nevertheless it is true, that almost all these saints led, like St. Paul, before their conversions, wild and vicious

lives. They thus by their habits predisposed their brains to disease. I have only to instance Sts. Anthony, Ignatius Loyola, Juan de Dios, etc., to prove the truth of this assertion. St. Francis Assisi was a rake and a spendthrift for twenty-five years of his life. At length his dissolute conduct brought on a severe illness and he came near dying. When he arose from his sick-bed his entire nature was changed. He wandered about the fields in an aimless manner, sad and sorrowful, sometimes weeping bitterly. One day he had a vision. He saw Christ nailed to the cross, and he then felt as he said, "The passion of Christ impressed even on his bowels, upon the very marrow of his bones, so that he could not keep his thoughts fixed upon it without being overflowed with grief." He at length took off his rich clothing and put on the rags of a beggar. Everybody considered him a madman, and as such he was driven from pillar to post. With all his madness he was, however, a great and good man. Says Lombroso: "Francis of Assisi, however, was original and great, not through those qualities which he had in common with the vulgar herd of ascetics—abstinences, mortifications, prayers, ecstasies, visions—but on account of something which was, without his knowing it, the very negation of asceticism—the affirmation and the triumph of the gentlest and sweetest feelings of humanity. The ascetic abhorred, condemned, and fled from nature, life, and all human affections, in order to steep himself in solitary contemplation. Francis, by example and precept, preached the love of nature, concord, mutual affection between human beings, and work. The ascetic called every thing beautiful in the world the work of Satan; Francis brought about a true revolution by calling it the work of God, praising and thanking God for it."

San Juan de Dios early in life joined the army. The life he led while soldiering had better be imagined than described. He was dismissed from the army for stealing from a comrade. He became a shepherd, and followed this occupation for several years. Finding the quiet life of a shepherd too tame to suit a roystering blade like himself, he re-entered the army. After several years' service he became sick, and when he recovered he had lost his memory. He had even forgotten the names of his parents. He again became a shepherd, and soon after began to have hallucinations. He lived for a time in Gibraltar, but having sold out his little stock of household goods, relics, etc., he settled in Grenada. Here, while listening to a sermon by Juan d'Avila, he was seized with a sudden maniacal outburst. He confessed his sins

with a loud voice, tore his clothing from his body, pulled out his hair by the handful, and rushed through the streets at full speed imploring God to have mercy on him. He was taken to the Royal Hospital and given the treatment prescribed for lunacy in those days (1539). He was bound with cords and unmercifully flogged in order to drive out the devil or evil spirit supposed to be in possession of him. After his frenzy left him he was released, and he made a vow to go on a pilgrimage to the shrine of the Virgin of Guadalupe. Notwithstanding the fact that he was without money and that it was in the middle of winter, he started on his pilgrimage barefoot and clothed in rags. When he arrived at Guadalupe he had a vision "which exercised a decisive influence on him. The Virgin appeared to him and gave him the Child Jesus naked, with clothes to cover him. This was to show him that he ought to have pity on the weak, shelter the destitute, and clothe the poor—at least such was his interpretation." While walking through the city one day he saw a sign on a vacant house which read, "House to let for the poor." This gave him the idea of founding an asylum. He begged money from the rich, whom he interested in his scheme, hired and furnished the house, and soon filled it with the sick poor. This was the first free hospital ever inaugurated. The name of this religious lunatic should be revered throughout all Christendom, for he was the founder of the charity hospital. The doctrines and prophecies of this man are to be admired because of their intense and absolute philanthropy.

Martin Luther had visions and hallucinations. On one occasion, when alone in a certain room which he called his Patmos, he heard nuts moving of their own accord inside a sack and flying round his bed. He thought too that showers of berries were thrown at him by invisible hands, whereupon he arose and cried, "Who art thou?" and then commended himself to Christ. On another occasion, when preaching in Wittenberg, he was explaining to his audience the Epistle to the Romans. When he reached the words, "The just shall live by faith," he heard this sentence repeated by a voice several times just at his ear. He had hallucinations of hearing on numerous other occasions, as we learn from his own writings. "Not seldom," writes he, "has it happened to me to awake at midnight and dispute with Satan concerning the Mass."

Savonarola had hallucinations of sight and hearing. When he wished to abandon politics and leave them out of his sermons, he heard

a voice say, "Fool, dost thou not see that God will have thee go on in the same way?" Says Lombroso, in "The Man of Genius:" "In 1492, while preaching during Advent, he (Savonarola) had a vision of a sword, on which was written, '*Gladius Domini super terrane.*' Suddenly the sword turned toward the earth, the air was darkened, there was a rain of swords, arrows, and fire, and the earth became a prey to famine and pestilence. From this moment he began to predict the pestilence which in fact afterward came to pass." Savonarola, on another occasion, thought that he went to heaven and held long conversations with the Virgin and many of the saints. He believed that he was the ambassador of Christ and a true prophet.

The insanity of St. Joan of Arc is too well known for any comment. I simply introduce her as an example.

Huss was markedly erratic. He had numerous visions in which he held conversations with angels. Hallucinations of sight and hearing were present in a marked degree.

Mahomet was an epileptic, and his visions and revelations were the results of brain disease. His convulsions are minutely described by contemporaneous Arab writers, and could have been nothing else save epilepsy.

The examples of prophecy and insanity cited in this paper are not introduced in strict chronological order, but appear just as they occurred to the memory of the writer. It can not be denied that these prophets and saints were mentally unbalanced, yet the doctrines they promulgated have been of incalculable benefit to mankind. Most of them preached ethical purity, coincidently a higher civilization. All were men of genius and of great originality. Genius, no matter in what shape it appears or how erratic it becomes, is sure to lighten the burdens of humanity with some portion of its heaven.

In the process of psychical evolution abstract ethics are the last acquisition of the brain. It frequently happens, however, that disease quickens the perceptions and hurries evolution in some brains, consequently every now and then a prophet springs up who is in advance of his age. He preaches doctrines little understood at the time by the masses. Some few advanced thinkers and many others who do not think at all, but are only ignorant, consequently credulous, believe in him and follow him. At some future time, long after the death of the prophet, men realize that the ethics he taught, though erratic, were in the main sound and of distinct benefit to the human race. Such were the men whom I have chosen to illustrate my subject.

On the other hand, there have existed many religious lunatics devoid of genius, and who at best are but poor imitators of men of genius and originality. Such an one was Joseph Smith, the prophet of Mormon. This man was the victim of epileptoid seizures. I will quote his own words; he is describing his first vision, which occurred to him after great mental distress and worry. There had been a great religious revival, and he had become very much alarmed. He had gone into the woods to pray, and while there had been seized with an *indefinable feeling of terror*: "Just at this moment of great alarm I saw a pillar of light exactly over my head above the brightness of the sun, which descended gradually until it fell upon me. It no sooner appeared than I found myself delivered from the enemy which held me bound. When the light rested upon me I saw two personages, whose brightness and glory defy all description, standing above me in the air. One of them spoke to me, calling me by name, and said (pointing to the other), 'This is my beloved son, hear him.' " After detailing a lengthy conversation which occurred between God and himself, he unconsciously reveals his physical condition by the following statement: "*When I came to myself again* I found myself lying on my back, looking up to heaven." He had hallucinations of persecution, for, although only an obscure country lad fourteen or fifteen years old, he imagined that men of influence and standing were persecuting him: "Yet men of high standing would take notice sufficient to excite the public mind against me and create a hot persecution, and this was common among all the sects; all united in persecuting me." Megalomania was also present; he called himself "Joseph the Seer." The morning after his interview with the Angel Moroni, in which he was shown the place where the Books of Mormon were concealed, he declares that he was utterly exhausted.

This is the usual condition of epileptics after a seizure. Smith's scheme of religion, both in the manner in which it was given him by God and its doctrines of polygamy, strikingly resembles that of Mahomet. It is either an imitation or an atavism; in neither case is it conducive to higher civilization.

Swedenborg was probably to a certain extent an irresponsible imitator of St. John. The character of the hallucinations tends to show that this was the case in the religious lunacy of this prophet.

Schweinfurth, "the Christ," is a megalomaniac and an imitator. His personal appearance indicates degeneration. He is probably the victim of some form or other of *psychopathia sexualis*.

The founder of the Oneida community of "Perfectionists," John Noyes, was the victim of atavism. He was a retrograde prophet, and preached doctrines which were practiced by our savage ancestors thousands of years ago. He did not believe in marriage and the rights of property. Women, like household goods, he considered common property (polyandry and polygamy); "he did not recognize human laws, and believed every action, even the commonest, to be inspired by God."

Thus we see that there are two kinds of religious lunatics; in the first (progressive prophets) we find genius and madness combined, in the second (atavistic or retrograde prophets) we find madness with imitation and degeneration. The first are of benefit to the human race, the second are not.

OWENSBORO, KY.

Reports of Societies.

KENTUCKY STATE MEDICAL SOCIETY.

Thirty-ninth Annual Meeting of the Kentucky State Medical Society, held at Shelbyville, Kentucky, June 6, 7, and 8, 1894.

FIRST DAY, WEDNESDAY, JUNE 6TH—AFTERNOON SESSION.

The Society was called to order at 2 P. M. by the President, Dr. John Q. A. Stewart, of Frankfort.

Prayer was offered by the Rev. B. F. Hungerford.

The Rev. Dr. Poynter, Science Hill Seminary, delivered the address of welcome.

The report of the Committee of Arrangements was read by the chairman, Dr. J. M. Harwood.

Permanent Secretary Dr. Steele Bailey read his report:

To the President and Members of the Kentucky State Medical Society:

The report of the Secretary to the Thirty-ninth Annual Meeting of the Society will be brief, and simply narrates that the ordinary duties of his office have been performed in the usual manner—always with dispatch and courtesy.

It is comfortable for him to state that the condition of affairs at the current date is a pleasing and an encouraging one. Facts warrant him in making this averment.

As you well know, the Volume of Transactions, No. 2, new series, was gotten out in most excellent time, thanks to the able and industrious Committee of Publication. It is a living epistle, and speaks for itself. Handsome in appearance, beautifully printed, free from typographical errors, it contains matter couched in good English, abreast of the times, and strictly scientific. We have exchanged the volume with all affiliated States, with the Medical Bureau of the Army and the State Boards of Health which are now publishing reports.

A little matter I ought to mention, though it isn't a pleasant one, but it concerns us at present, is that we are somewhat in arrears to the publishers, the amount of which doubtless will be mentioned by the Treasurer. Barring this every thing is in good form, and were the times more flush, with a *parity* and *free use* of both coins of the realm, silver and gold, every member would attend our annual reunions, have a good time, and pay his dues promptly. There would be no friction; the Secretary and Treasurer would escape denouements and duns, little nonentities, however, which come to us, we suppose, as legacies, being the guardians of the Society upon whom all business depends. Many most excellent members, when it hasn't been convenient to attend the annual meetings, carelessly forget to remit dues to the Secretary, which they would do if they remembered that each name upon the roster entails a cost annually of at least one dollar and fifty cents, or thereabouts.

It is necessary only to mention this fact; the suggestion will be carried out, annoyance spared, and our credit handsomely maintained. Not that the color of our integrity has been questioned, but, speaking after the manner of worldlings, a surplus in public as in private life is always a blessing. Pardon this financial linger!

A word as to the programme, which is now spread before you. As usual it is witty, replete with good things, which will be read and discussed in your hearing.

In the mutability of things, since our last meeting held at the Capital in May one year ago, the Reaper has been making his untimely visits and has taken from us the following respected members:

Dr. Robert Peters, of Lexington, and Dr. Joseph P. Letcher, of Lancaster, both charter members. Also Dr. Matthew T. Scott, of Lexington, and Dr. William Mandeville Griffiths, of Louisville.

There may be others, the knowledge of which hasn't reached this office.

Permit the Secretary to request that upon the demise of a member some brother, in whose province the facts come, notify him at a convenient and early period. The reason is apparent. A memoir of the person, which is his due, may then be arranged for, read at the first annual gathering, and the same incorporated in the Transactions.

Dr. Lyman Beecher Todd, at my request, kindly prepared for the Society memoirs of Drs. Peters, Letcher, and Scott.

The following gentlemen are now representing this Society in San Francisco at the meeting of the American Medical Association: Drs. L. B. Todd, H. Brown, B. L. Coleman, A. D. Price, Andrew Seargent, George E. Davis, F. M. Green, and T. B. Greenley.

With best wishes for the entire success of this the Thirty-ninth Annual Session of the Kentucky State Medical Society, I am faithfully,

Your Secretary, STEELE BAILEY, M. D.

The report of the Committee on Publication, Dr. L. S. McMurtry, Louisville, chairman, was read.

The Permanent Secretary then read several applications for membership, which were favorably acted upon.

A letter from Mr. J. W. Gayle, Secretary of the Kentucky State Pharmaceutical Association, advised that the following delegates had been appointed to convey to the Kentucky State Medical Society greetings of sympathy and interest in all matters pertaining to the welfare of the Society: Dr. Wiley Rogers, Prof. O. C. Dilly, and Mr. J. J. Reynolds.

On motion these gentlemen were made members by invitation.

Prof. O. C. Dilly addressed the Society.

Dr. J. B. Marvin, of Louisville, addressed the Society extemporaneously on the subject of "Acute Lobar Pneumonia; its Etiology and Pathology." The speaker drew the usual sharp distinction between croupous and catarrhal pneumonia, and without discussing the features of the latter variety, exhibited the former in the light of recent research. Acute croupous pneumonia is a specific febrile disease. The lung lesion is its local focus, the phenomena of engorgement, solidification, resolution, etc., being due to the rapid proliferation in the air-cells of pathogenic bacteria. The claims of different bacteria to rank as etiological factors in the disease were clearly set forth. The diplococcus of Friedlander (*bacillus pneumoniae* of Flügge) seems to have given place to the micrococcus *pneumoniae-crouposæ* of Fränkel and Sternberg.

The production of tox-albumens by bacterial growth and their influence upon the clinical features of the disease were learnedly considered. His remarks were illustrated by numerous lantern slides.

Dr. John A. Lewis, of Georgetown, followed with a paper entitled, "The Treatment of Acute Lobar Pneumonia." [See p. 89.]

These two papers were then jointly discussed by Drs. Wm. Bailey and John A. Larrabee, of Louisville, the discussion being closed by Dr. Marvin.

DISCUSSION.

Dr. William Bailey, Louisville: I am satisfied with the presentation made by the first essayist as to the division of the subject and as to causation. I am satisfied the subject, if properly divided, should include catarrhal and croupous pneumonia; croupous pneumonia, the one under discussion, being so distinct and having such a specific history, must be regarded as a specific disease, and hence must have a specific cause. I am ready and willing to accept Fränkel's micrococcus as being the cause of croupous pneumonia, fulfilling all the tests that may be required of it: that is, every case must show the microbe, or at least ninety per cent of them, which is a fair average. And then, inasmuch as the disease can be propagated by inoculation by a pure culture, when every thing else is excluded, it is capable of producing this specific disease. Furthermore I am satisfied from its specific history it has a definite course to run. It is not simply a local inflammatory process, because the fever in connection with it is not of that character. It is specific and independent of the character and amount of lung tissue involved. It has a specific history and its own type independently of what may be going on in the lung at the time. As a rule the disease terminates by crisis on the sixth or seventh day. If it was a symptomatic fever dependent upon an inflammatory process, then it should conform to the rule of catarrhal pneumonia, and the fever last as long as the inflammation lasts, and as the fever subsides terminate by crisis independent of the local process in the lung.

With reference to Dr. Lewis' paper, he has given us a good, plain, common sense, practical contribution. We must, in considering a disease like this, consider first its causation, and then the effect and manner if possible in which that cause operates to produce the disease, and govern our treatment accordingly to prevent the death of the patient. That should be the chief point for us to have in view. We do not cure many diseases, allow me to say, but if we prevent the patient from dying while nature is curing it we do very well. I am firmly convinced, either by the germ itself or by the natural physiological product of it wherever it is developed (call it a toxine, or a pneumotoxine if you please), that the poison is generated by a germ that operates as all other poisons do. As the alkaloids operate on the nervous system, affecting materially the patient by the production of fever and their effect upon the heart, we have to combat the influence of the poison. By the development of the local process in the lung there is obstruction to the circulation, and hence additional work is placed upon the heart, the right side of the heart being responsible for this lesser circulation.

Now I think we have only two points in the management of pneumonia. One is, that the heart shall not be further taxed by the excessively high temperature, and the second one is, that we must sustain the heart while it is laboring under this burden; hence I am ready to say, that inasmuch as this disease is characterized by high temperature, as a rule ranging from

104° to 106°, although it runs for a period of six or eight days, sufficiently long to produce death, I believe it is incumbent upon us to lower the temperature. With this end in view I have resorted to antipyretics. If we select them properly we can accomplish our object. I express my preference in favor of phenacetine. It has little if any power to reduce the heart's force. For sustaining the heart I am inclined not to disregard nutrition. During this short time the heart cries out for nutrition. I would nourish as much as I thought best. I would sustain the heart during this crisis, and I think under certain circumstances digitalis is the remedy. The objections to it are principally upon the ground that it makes the tension too high, contracts the capillaries too much, and I am inclined to think we have in the nitrites and alcohol very appropriate agents for this purpose, they having the power to increase the action of the heart, to open up the capillaries and let off tension. The nitrite of amyl, glycerine, and alcohol are remedies of great service in the treatment of pneumonia. In addition to these, I think the hypodermic use of strychnia for the maintenance of heart power is very valuable, and I think we ought to pay more attention to this remedy in the treatment of all those diseases characterized by so-called heart exhaustion than is done at present.

Dr. John A. Larrabee, Louisville: I am not surprised that we should be so much at sea in regard to definite toxicæmic poisons. When the Israelites were freed from bondage and went into the land of Canaan they were paralyzed at the sight before them. When we have been liberated, as we have recently from the bondage we have heard mentioned in the paper in the matter of therapeutics, we are hardly able to run over this field at a more rapid rate than is being done. It is such an astonishing emancipation that we can hardly realize it.

There is one point especially with reference to children that we ought to be grateful for, and that is the obliteration of a definite age for pneumonia. Probably there has been no greater factor in the mortality of pneumonia in children than the acceptance of a vague, indefinite age limit. Many physicians hold the opinion that infants below a certain age can not contract pneumonia. For instance, that a child about three years of age can not be the subject of croupous pneumonia, and that therefore all the diseases were considered either catarrhal or so-called broncho-pneumonia. The removal of that by the etiology of the disease, as explained here to-day, will be the most potent factor in the recognition and alleviation of this disease. I have seen typical croupous pneumonia in infants at all ages. I do not exclude any. Their liability to it is lessened by maturity.

In the peculiarities of pneumonia as illustrating the cause by the pneumococcus it is best seen in children. The recognition can not be made if we depend upon the rusty-colored sputa. They swallow it and do not expectorate it.

In regard to immunity as secured by the introduction of the anti-pneumotoxine, the first law of vaccination is, that if you once have immunity

you almost always have it. If we treat hydrophobia by Pasteur's method, and immunity is not secured, it is the best evidence in my opinion that we are not dealing with the known cause of the disease.

The paper read by Dr. Lewis is a resumé of the subject past and present, and looks a long way into the future.

In regard to mortality in the days when venesection was the fashion, it must be remembered that the mortality from croupous pneumonia in mediæval times was from thirty-two to forty-two per cent. In the Massachusetts General Hospital, during a period at which bleeding, calomel, and antimony were the treatment, and in England, it was ten per cent. The mortality under no definite treatment, but any treatment which the physician chose to apply, that aimed at no particular part, was eighteen per cent. We can not therefore ridicule the idea of bleeding. By bleeding we are doing the very thing which the doctors desire to do with other remedies, namely, to lessen the strain upon the right heart, which I do not believe can be done in any other way than by inviting blood from it and not requiring it to push it.

Dr. Marvin (closing the discussion): I would like to say a few words about the most excellent paper of Dr. Lewis. While he had a great deal in it that I can emphatically indorse, he left out a few points that I think are important. First, I believe that in pneumonia buccal and intestinal antiseptics never does harm, but may do great good. If the mouth, as we know, is the local habitat of the specific germ, why not keep it clean? You add comfort to the patient. You certainly do great good if you have a good mouth and a clean intestinal tract. I use water internally and externally. I know that poultices seem to be indicated, but as commonly made they are my pet abomination. The moving and turning and twisting of the patient defeat the very object you have in view in keeping the patient absolutely quiet on the flat of his back. A poultice is of no earthly use after it is cold. I have a man to make his own poultices. I simply apply cotton batting and oiled silk over it, and the patient will generate heat or moisture enough to moisten his own poultice. In the next place I give coffee all the way through. I believe in all infectious diseases coffee is one of the most important and capital stimulants we can give. I also advocate chewing gum, and not tobacco. I am thoroughly opposed to that method of treatment in vogue in the East, the so-called trinity pill—aconite, digitalis, and strychnia. I leave off aconite and digitalis. I believe in strychnia. It seems to me we have a trinity to look at of a different kind—heat, fever (pyrexia), heart failure, and we may add respiratory disturbance. The greatest of these is the heart, ninety per cent of adults dying of heart failure. Strychnia, acting through the nerve centers, does more good than any thing else.

One word in regard to digitalis. I have never seen, in twenty years' practice, digitalis do any good as a heart stimulant, except where there was valvular trouble. In valvular trouble we have a fair agent in digitalis. In cases of croupous pneumonia, with a solidified lobe of the lung, with the

right heart overdistended, with slight muscular development, the right heart pumping quick, I give nitroglycerine frequently and at short intervals. I give it every twenty or thirty minutes hypodermically.

Dr. Julia Ingram, of Louisville, read a paper entitled "Conservative Gynecology." The author took the ground that too many laparotomies are done upon women to-day. Women suffering from obscure uterine or ovarian troubles are daily submitted to the knife, and not a few are thereby sent to the undertaker, whose diseases might have been cured, or whose lives might have been prolonged, by conservative treatment. To open the abdomen is a sort of mania with some young surgeons, and they scour the country to hunt up cases that seem to be operable. It is hardly necessary to say that some of the patients so secured and so operated upon are victims to the inexperience of young ambition.

Of course, experience can be obtained only by practice; but experienced operators can always be found, and no tyro should attempt a laparotomy upon a human being who can not secure the counsel, attendance, and assistance of some master in this realm of surgery.

The discussion was opened by Dr. Arch Dixon and continued by Drs. John G. Cecil, J. M. Mathews, and John A. Larrabee. The discussion was closed by the author.

DISCUSSION.

Dr. Arch Dixon, Henderson: I agree with the authoress that there is too much tendency at all times for operations on women. I saw an operation for oöphorectomy by a specialist some two years ago. He removed the ovaries of a woman from Indiana, and if there was any thing the matter with them I could not see it. The woman complained of pain in the pelvic region, and if the operation was done to relieve it, it was a failure. There are some men who, if they open the abdomen and find nothing, would not have the nerve to close it up again, but would remove the appendages. They would not acknowledge that they had made a mistake in diagnosis.

It is the tendency nowadays, as the essayist has said, for young doctors to hunt up such cases. They have a mania for opening the abdomen and removing the ovaries. I heard a gentleman say at the last meeting of this Society that the pendulum had swung beyond that, and that it was now coming back. With the younger men it is still swinging the other way. They do operations without making a proper diagnosis. Exploratory operations should be undertaken to find out what is the trouble.

A short time ago I saw a young doctor operate for the removal of an ovarian tumor. When he opened the abdomen it proved to be a floating spleen. It seems to me the average practitioner should be able to decide

between a floating spleen and an ovarian tumor. He made the diagnosis himself, and invited several practitioners to see the operation.

I fully agree with the essayist that conservative treatment would save a great deal of suffering and perhaps the lives of a great many women. I know there are many specialists in gynecology who do not agree with me. This thing of conservative tinkering would seem to be beneath the notice of laparotomists.

Dr. John G. Cecil, Louisville: I have always pleaded for conservatism in gynecology. I have had some experience with gynecological work in an operative way that has been quite amusing. I believe there is a very large field for the hygienic and therapeutic treatment of diseases of women. I believe that too much work of the cutting kind has been done. I remember to have seen recently a prominent operator do an exploratory incision. He made an uncertain diagnosis. He felt he had something, but he did not tell us exactly what it was. After having made an incision, he pulled up the ovary and found what he said was a cystic condition of the organ. I do not believe, however, that this was the condition at all. It looked to me like a healthy ovary, but he, in this instance, did not have the nerve to put it back and close up the incision. Before doing so he touched it with the Paquelin cautery, and I asked him why he did so. He said if it were cystic the cautery would destroy it. It would destroy the cyst wall and prevent a possible accumulation of material therein. Certainly an accumulation would not follow after using the Paquelin cautery. That was a conservative operation to my mind. The operator having discovered that there was nothing there which demanded a serious operation or removal of the organ, touched the cyst with the Paquelin cautery. I was glad to see him do this. I believe the day will soon come when more than this gentleman will have the courage to acknowledge that they have made mistakes, and that the exploratory incision has revealed nothing abnormal. If a man opens the abdomen and finds nothing, he had better close up the wound without further mutilating the patient.

Dr. Joseph M. Mathews, Louisville: It seems to me that there are two sides to this question. We have heard one side. I must admit that there are a number of cases in which, unless operative procedure is undertaken, the patient would die. We must admit that from the time of McDowell to the present hundreds and thousands of women have been saved by abdominal section. Therefore the point comes up, not whether conservative gynecology is correct, but in what cases is it correct? You might just as well say, if a man has appendicitis, that you are to stop for a number of days and by conservatism find out whether or not the appendix is involved. The surgeon makes his incision, comes to a solution of the question, and saves the man's life. So with these other cases, if a diagnosis can not be made, and yet there is a condition, for instance, of pyosalpinx and you are dealing with pus, which means inevitable death, is not the physician or surgeon at fault if he does not practice aggressive surgery instead of conservative treatment?

In the question, Who shall do these operations? a good point was made by the essayist. I agree with Dr. Ingram that we have no right to permit inexperienced operators to experiment upon people; that only by a long course of careful watching and intense study are we qualified to do the operation or to correctly diagnose the case.

Dr. John A. Larrabee, Louisville: I rise to say a word or two in answer to the remarks of the last speaker. I do not know how it is possible for a young man to do these operations who does not experiment. The question is where the age limit comes in. Who is the young man, and who is the old man? The biggest fool I ever saw was an old man. I do not think it is right to condemn the young man and say none but experienced men should operate. If they do not experiment, I do not see how they are going to do these operations. It is presupposed, however, that they have had more or less training in this particular line in order to undertake operations.

Dr. Ingram (closing the discussion): In regard to who shall do these operations, it is very true that the young practitioner must have his first case, but he should have long and thorough training before any thing of the kind is undertaken. One point in regard to conservatism. It is culpable to allow a patient to die from lack of operation. If, after making an exploratory incision, the operator finds nothing to be removed, let him close the wound. Very little if any harm can come from making an exploratory incision. What we need in these cases is careful training in diagnosis. Let the diagnosis be carefully made before operative interference is resorted to. I would certainly trust a person to do these operations who has served a long experience as assistant to a good operator.

(TO BE CONTINUED.)

Pediatrics.

Under the Charge of Henry E. Tuley, M. D.

STARTING-POINTS OF TUBERCULOUS DISEASE IN CHILDREN.—Dr. J. Walter Carr read a paper based on 120 necropsies upon children suffering from tuberculous disease, and drew the following conclusions: (1) Tuberculous disease commences usually in the glands, the liability being at its maximum during infancy and early childhood, and rapidly decreasing in later childhood. But of the 120 cases the disease had almost certainly commenced in the glands in 70, or 58.3 per cent (including 13 in which glands only were involved), and in 17 more, or 14.2 per cent, there was considerable probability at least that the glands were the primary focus. Including the doubtful cases, the glands formed the primary focus in 64.5 per cent of those under five, and in only 37 per cent of those above that age. (2) Tuberculous lesions in the cervical glands, as in the joints, may arise by infection

through the blood-stream, but caseation of the bronchial and mesenteric glands, when primary, is usually, if not always, due to direct infection from the organ with which they are connected, it having been shown that bacilli may pass through the lungs or the intestinal walls without producing any recognizable lesion, and that they then enter the lymphatic channels and not the blood-vessels. (3) Tuberculous disease starts much more frequently in the thorax than in the abdomen, and certainly far more often in the thoracic than in the mesenteric glands. Of the 120 cases, in 79 the disease probably started in the thorax (in 54 certainly and in 12 possibly in the bronchial glands); in 20 in the abdomen (in 12 certainly and in 2 possibly in the mesenteric glands); and in 6 in either one or the other cavity. In only 2 cases were the cervical glands the probable primary focus. The conclusion is that, though infection undoubtedly does occur through the intestines, and especially (as experiments on animals have shown) through milk, yet infection through air is by far the more frequent and important. The disease is so commonly generalized in children that figures merely giving the frequency with which different parts are affected are of little value, the important point being to ascertain where the disease is most advanced, that is where it probably commenced. (4) Caseation of internal glands, from the frequency with which it is found after death, must often exist alone and quite unsuspected, being doubtless in many cases quite impossible of diagnosis, and it is very necessary to realize its frequency and importance when dealing with obscure febrile conditions in children. (5) In regard to treatment, prophylaxis is by far the most important; and as it is probably impossible to prevent bacilli from obtaining access, we must try to increase the resistive powers of the system to their entry, above all by keeping the mucous membranes healthy, by dealing promptly with and if possible preventing rickets—the great cause of catarrh in early childhood—and by taking especial care of children during convalescence from acute specific fevers, which so depress the vitality of the body generally, and the resistant power of the mucous membranes, as well as the filtering power of the glands in particular.

Dr. Sidney Martin questioned the accuracy of the author's figures in so far as they bore on the proportion of cases in which infection took place through the intestine. The difficulty of establishing *post-mortem* where infection had originally taken place was one that forced itself on the attention of all investigators. The author seemed to take as proved a good deal in respect of the infectivity of food which was far from certain. He divided cases of tuberculous infection, whether experimental or clinical, into three classes: (1) Those in which there was a definite lesion at the seat of infection; (2) those in which there was no local lesion at the seat of infection; and (3) those in which the local lesion was slight or healed, and in which the constitutional infection took place later on. He pointed out that the puzzling cases of so-called primary tuberculosis in the meninges, joints, or glands were often dependent on the previous existence of infected

and for a time quiescent glands in the mesentery or elsewhere. He explained that when the dose was small there might be no local lesion, only the glands being infected. If the dose were large enough, however, it would produce tuberculosis with a local primary lesion, however introduced. The production or not of a local primary lesion was merely a question of dose.

Dr. Routh suggested that the irritation of the neighboring lymphatic glands was an effort on the part of nature to resist the invasion of the organism.—*British Medical Journal*, May 12, 1894.

INFANTILE INSURANCE.—In an editorial the Boston Medical and Surgical Journal, October 5, 1893, says: "The practice of insuring the lives of children has become so prevalent among the lower classes in England that various official inquiries have been held and attempts made to restrict it. The National Society for the Prevention of Cruelty to Children brings many parents into court charged with maltreating or neglecting their children, and among these cases there are many in which it appears that the lives [it were better to say the death] of the children are insured. In few is there a deliberate intention on the part of the parent or parents to direct murder, but in many the neglect is so outrageous that it is evident that they follow Clough's decalogue, 'Thou shalt not kill, but need not strive officiously to keep alive.' They consider the death of the child good riddance, and if the child is likely to die anyway, its seems only good business to make something out of its death. To what extent this infantile insurance is responsible for this cruelty and neglect is very hard to determine. In some cases reported to the authorities the evidence is strong that children have been done to death as a business enterprise."

He then asks, "Is there any thing at all similar to this with us?" and takes the view that with us it is generally an insurance "for burial purposes only, and the whole amount goes to the undertaker, being a different matter from the infantile insurance in England, where the fact that a child is insured increases the advantages of having it out of the way, and influences its treatment by its parents." [Is not this a one-sided view?]

N. B. The brackets are mine. A. E. G.

NEURITIS SUPERVENING DURING THE TREATMENT OF CHOREA BY ARSENIC.—Dr. J. A. Adams (London Lancet, No. 3676) reports a case, a bright girl of eleven years, who had had well-marked chorea for two weeks and was unable to walk or feed herself. After the administration of ten minims liquor arsenicalis (B. P.) *ter die* for three weeks she was much improved, choreic movements had almost ceased, she could feed herself, and was permitted to get up. A short time after she complained of dysphagia, when the arsenic was discontinued. Two days later she said her legs were painful and felt numb, the calves tender, some paresis of the legs, impaired sensation, patellar reflex absent on both sides. A day or two later the anus

became affected in the same way; gradually all the limbs became powerless, the muscles flaccid and extremely wasted. Temperature 99° F. in the morning, 100° in the evening, and continued so for three weeks, when she gradually began to recover under the use of prepared food, cod-liver oil, tincture nux vomica, massage, and faradism. At the end of three months she could sit up, feed herself, but could not walk properly. The numbness had disappeared, and the muscles had regained much of their strength and tone. The interesting point about this case is, in view of the present much-advocated use of large doses of arsenic in chorea, the possibility of the occurrence of peripheral neuritis without any of the cardinal symptoms of arsenical poisoning, though the case be closely watched in the hospital.

MICRO-CEPHALIC IDIOCY.—When Prof. Lannelongue, twelve years after the operation of craniectomy performed by Fuller for idiocy, and never repeated, had communicated in 1890 to the Academy of Sciences the fortunate result of a similar operation performed by him on a little child of four years, he met with an enthusiastic reception. Restoring the intellect to idiots by removing a strip of the cranium in order to give room to the brain to develop normally was truly well imagined. The history of this case stimulated other surgeons, and cases became multiplied. At the Surgical Congress of 1891 Lannelongue presented twenty-five new cases with only one failure. However, when the first emotion had passed, surgeons became more skeptical as to the advantages in an intellectual point of view of the operation, and many even opposed it strenuously, alleging that it was the brain which made the osseous envelope, molding it to its own shape; that premature ossification of the sutures does not exist, and in any case degeneration of the brain substance co-exists with deformity of the cranium. In spite of this criticism, craniectomy is capable of rendering real services in certain well-defined and well-chosen cases.—*Indian Medico-Chirurgical Jour.*

THE TEETH OF SCHOOL CHILDREN.—Mr. D. Pedley, in a report on the result of the examination of 661 boys at the Industrial School, Feltham (*Lancet*, 3676), shows the presence of caries among the young, even when they are under favorable conditions for the maintenance of health, no less than three fourths of the inmates having defective teeth. It is significant that 135 boys were admitted to the infirmary for dyspepsia alone during 1892. The six-year-old or first molar appears from these statistics to be especially prone to disease and premature loss, as is also the experience in private practice. This is to some extent due to its being frequently mistaken for one of the temporary set, and therefore unworthy of attention, which is a grave error, frequently resulting in irremediable lesions of the permanent dental arch. Mr. Pedley strongly urges the advisability of the appointment of a dental surgeon to the school, and that cleanliness of the teeth by means of the tooth-brush and powder should be rigidly enforced, a recommendation in which we heartily concur.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Congress of Hygiene and Demography; A Physician on Sunday Observance; Death of Dr. Little; Public Health Congress; Dr. Bannister on Milk Adulteration; Treatment of Sunstroke; Hospital Saturday; Superstition in Devonshire; An Unsatisfactory Verdict, etc.

Miss Florence Nightingale has been appointed an honorary president of the Tropical Section of the International Congress of Hygiene and Demography to be held at Buda-Pesth from September 1st to September 9th. A large number of papers have been promised to this section, and discussions of great importance to our Eastern Empire, particularly with reference to the spread of cholera, the effects of the consumption of opium, and the possibilities of tropical colonization, are anticipated.

Sir Dyce Duckworth, M. D., recently said, speaking as a physician, that the question of Sunday observance was one for all classes, although the problem presented by the masses in large cities like London was more pressing than in rural populations. He had an intimate knowledge of how Sunday was spent in a forlorn part of South London, and he could truthfully say that the lives of the mass of the people there was simply gross and swinish. He was not, however, without hope of improving the finer faculties of such people, and one of the best means of doing so was by the opening of museums and picture galleries on Sundays. He was aware that such a proposition was offensive to many good people, but he knew of nothing better which would meet the actual condition of things in London. Sunday traveling was common, and public houses were open on Sundays. Was it worse, then, to walk round a museum, look at good pictures, or listen to sacred music than to lounge about dull and unlovely streets, to booze and sleep off the effects of strong drink or perhaps to do more evil things?

The death is announced of Dr. D. I. Little. He was in his day one of the leading London specialists on the diseases of children. He was for some years Physician and Lecturer on Medicine at the London Hospital. He was also the founder and for many years physician to the Orthopedic Hospital. He was the author of several important medical works, and a member of learned societies both at home and abroad.

The Annual Congress of the Institute of Public Health, which is to be held this year in London, promises to be a great success. The subjects discussed will include the housing of the working classes, the disposal of

refuse, the water supply, with its kindred questions of river pollution, and sewage, foods and drink, and the certification and registration of sanitary inspectors and plumbers.

Dr. Bannister, in his evidence before a select committee of the House of Commons, appointed to investigate the subject of food adulteration, said that one of the most difficult things in the world was to say with certainty whether a particular sample of milk was good or bad from a legal point of view. By the Food and Drugs Act it is laid down that milk must be considered genuine unless it has been mixed with something that is not milk. But legislation did not get at the root of the evil. According to Dr. Bannister, even the strictest and most skillful chemical analysis will not always show the difference between poor milk, which is not necessarily illegal, and adulterated milk, which is. What is even more puzzling, one system of analysis will show that a particular sample is legally pure, while another will point to exactly the contrary conclusion. The practice at Somerset House is to regard any milk containing only 8.5 per cent of solids with suspicion, which is considered a rough criterion, and hardly to satisfy the requirements of the Act.

Surgeon-Major Martin's treatment of sunstroke by subcutaneous injection has attracted much attention in military medical circles. Dr. Martin admits three forms of the affection in question. The congestive or cerebro-spinal, the syncopal form, and the pulmonary form. In all these cases he says death appears to be due to the absorption and non-elimination of the toxins or leucomaines produced in excess by great muscular fatigue, and which rapidly poison the system. This toxic saturation of the body is facilitated by damp heat and stormy weather as much as by insolation properly so called. When, in spite of precaution, a soldier is attacked he must be at once taken to a shady or cool place, his clothes loosened so as to facilitate breathing, artificial respiration should be practiced, while an assistant at the same time produces corresponding compression over the body. While artificial respiration is being performed the head of the sufferer is covered with a cooling bandage, and sinapisms are applied to the lower limbs. Every hour a subcutaneous injection of ether (one Pravaz syringeful). In the syncopal or pulmonary form, in which the nervous system is prostrated, it is better to give injections of caffeine, as much as a gram in the twenty-four hours, and in the congestive form, while cold affusions are applied to the head and sinapism to the extremities, to give subcutaneous injections of pilocarpine to produce profuse perspiration, and then to aid in the elimination of the toxins purgative enemata must also be given.

At the Drill Hall, Farringdon-road, the contents of 887 collection boxes, used on Hospital Saturday in the London district, were counted by a staff of bank clerks, with the following result: Gold, £95 10s; silver, £883; copper, £845—total, £1,823 10s, being an increase upon last year's collection from the same district of £400.

Another illustration of the superstitious belief still prevalent among the dwellers in the West of England was recently given at a small Devonshire village during the course of an inquest on the body of the infant son of a peasant. It appears the child, aged two years, caught in its mother's dress and fell foremost into a bucket of boiling water, and sustained such fearful injuries that it soon succumbed. An old woman named Milton was asked to "say a prayer to it." It was stated that superstitious practices had been going on in the village for some time. The coroner characterized the superstition prevalent in the village as worthy of the Dark Ages, and said, in the whole of his experience, he had never known a case of such gross ignorance as to imagine that a child could be saved from death or have its sufferings relieved by an old woman's incantations.

During the recent hot weather the sanitary officials of Billingsgate Fish Market have seized one hundred and nineteen tons of fish as unfit for human food.

Lucci, who some few years ago gained notoriety as a fasting man, has started a fast of thirty days. As before, he has resort to his mysterious liquid, of which he pours two or three drops into a pint of water. He smokes several cigars daily, walks about, and converses freely with his visitors. He is said to be fasting under the supervision and inspection of a committee composed mainly of medical men.

The civil hearing of the Harness Electropathic Belt case has ended in as unsatisfactory manner as did the criminal trial some months ago. Colonel Brasyer has not got his money back, nor has he recovered damages for improper medical treatment. Mr. Harness and "Dr." McGilly have not recovered damages from the Colonel for malicious prosecution. In all probability the jury came to the conclusion that the belt and other nostrums vended by the Medical Battery Company were neither better nor worse than the rest of quack remedies so loudly vouched for in advertisements, and that the Colonel had only himself to thank for placing faith in such treatment. Perhaps they thought that there is a good deal of quackery in all medicine.

In the Library of the Royal College of Surgeons of England there has been an exhibition of a series of drawings of the heads of murderers who had been sent at various times to the college for dissection.

LONDON, July, 1894.

Abstracts and Selections.

TETANY IN PREGNANCY; RELATION TO MOLLITIES OSSIIUM.—Neumann and Braun (*Centralbl. f. Gynäk.*, No. 20, 1894,) introduced a discussion on this subject at the March meeting of the Vienna Obstetrical and Gynecological Society. One case of Braun's was unique. A 9-para, aged thirty-nine, had suffered for five years from mollities, bearing five children during the illness. The disease always advanced during pregnancy and halted after each labor. In her last pregnancy tetany set in; she had never suffered from it before. The bone disease making rapid progress, Porro's operation was performed. Although immediately afterward the mollities began to cease its advance the tetany still remained, though it usually ceases after labor. It was slowly disappearing when the report was read. Braun's second case was in a woman aged twenty-eight. In her second labor, at the seventh month, severe tetany occurred during each pain. The spasms were confined to the right arm. They ceased on the administration of morphine, and the labor ended normally. Neumann's first case was thirty-seven years old. In the second half of her fifth pregnancy tetany occurred in the hands, and recurred at every succeeding pregnancy when quickening was first noticed. During her eleventh pregnancy tetany attacked the hands, feet, and muscles of the neck. At delivery the convulsions became severe at each pain, and also during the taking of a pain or massage of the uterus. Laryngeal spasm and cramps of the diaphragm and muscles of the abdomen occurred. The tetany became less frequent when the labor pains ceased. In Neuman's second case the patient was thirty. Tetany occurred, in the last month of her first pregnancy, in the hands. It recurred during childbed after her third delivery; in the three following pregnancies and labors it was not observed. In the seventh pregnancy it set in two months before labor, and became very severe during labor pains. There was much pain in the hands; the feet and eyelids were involved. After expulsion of the child the convulsions became less. *Post-partum* internal hemorrhage occurred. The uterus was emptied of blood and the tampon applied; these manipulations aggravated the tetany. The patient recovered, the tetany ceasing gradually during childbed. The patient had mitral incompetence. *British Medical Journal.*

KLEPTOMANIA.—The close connection between moral error and mental disease is a circumstance which constantly imposes upon the practitioner a difficulty of the same duplex character in relation to diagnosis. Moral alienation, it is well known, indicates from a very early stage the decay of the reasoning faculty. Moral insanity, in like manner, denotes that mental

state which exhibits in its feeble and absolute submission to the senses the failure of healthy self-control. Among its innumerable forms, an interest which is not entirely pathological attaches to the sometimes rather comical vice of "kleptomania." The question of criminal responsibility overshadowed by this term brings it more or less within the scope of public opinion. There are, no doubt, a number of cases which illustrate only what may be styled the vagaries of the disease. They are manifestly related to other like extravagances of manner and action, and are the obvious effects of insane suggestion. The thefts of the imbecile and the general paralytic belong to this class; others, however, show some connection with method and motive. These, especially if unrelated to other signs of insanity, must be regarded with suspicion. There is, for example, a practical difference between the act of a person, otherwise sane enough, who impulsively pockets your household silver, and that of another, who vainly labors, as in a case actually recorded, to stow the coal-scuttle in his nether garments. In deciding the question of responsibility, therefore, the evidence of motive and the presence of other and grosser morbid symptoms, especially the latter, should, in our opinion, be allowed to exercise a most important influence.—*London Lancet*.

TREATMENT OF INFANTILE CONVULSIONS.—J. Simon (*Gaz. des Hôp.*, Feb., *La Méd. Inf.*, May, 1894,) divides the treatment of infantile convulsions into four stages: (1) In the first place the digestive canal should be emptied, as in four fifths of the cases the convulsions are due to indigestion or obstinate constipation; a warm enema should be given with oil, glycerine, or salt. (2) To calm the nervous system, ether or a few drops of chloroform should be given by inhalation; after the enema has acted a clyster containing chloral and musk should be given (8 grains of chloral to an infant of three to six months, 11 grains to an infant of nine months, and 15 grains to one of a year, with twenty drops of tincture of musk) in three or four parts to insure its retention and absorption. In addition a mixture containing small doses of bromide of potassium and tincture of musk should be given every hour or every half hour. (3) In obstinate cases, cutaneous revulsives should be used, such as mustard baths (from one to three), or a blister to the back of the neck, left on for three hours. (4) In seeking the cause of the convulsions, if indigestion, constipation, and enteritis be absent, search should be made for burns and other sources of cutaneous irritation, foreign body in the nose or ear, hernia, undescended testicle, or retention of urine, but especially for evidence of uremia. If there be reason to suspect that condition the treatment prescribed should be counter-irritation over the kidneys, hot-air baths, leeches to the mastoid process, or venesection. When the attack has passed off the infant should not be considered out of danger until it has passed water freely.—*British Medical Journal*.

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IS CANCER INFECTIOUS OR CONTAGIOUS?

This question asked, as we well know for many years of tubercle, has, under the brilliant researches of our day, been answered in the affirmative, and since its settlement with reference to tubercle, the question has been and still is most anxiously asked of "cancer," the word being used generically as applying to all forms of malignant neoplasm.

It is perhaps not as yet scientifically demonstrated that cancer is a disease of parasitic origin, but in view of the behavior of the disease and recent results of its etiological study there can scarcely be any doubt in the mind of the enlightened physician that it is so.

The Boston Medical and Surgical Journal of the 9th instant calls attention to the recent interest stirred up in England upon this topic by the publication in the British Medical Journal of Mr. Shattock's Morton Lecture:

Mr. Shattock having again called attention to the fact that cancer, like tubercle, may repeatedly show itself in certain houses, as an argument in favor of a definite parasitic etiology, several communications have been made to the British Medical Journal of such interesting cases; so that it would appear to be a more common occurrence than has been supposed. A single example in a physician's practice might easily be considered coinci-

dence unless confirmed by other cases. The collected evidence of many such authenticated cases, where family relationship and heredity can be ruled out, would be of great service in establishing data for further proof. Among the more striking of the cases reported are the following:

Mr. D'Arcy Power, of St. Bartholomew's Hospital, reports this instance: "Miss B., aged forty-five, lived in a certain house in the suburb of London for thirteen years, and died of cancer of the stomach in 1884. Miss T., aged forty-seven, then succeeded to her place and bedroom. She had lived in the house for twenty years, and died of cancer of the liver in 1885. Mrs. J., aged sixty-seven, who had lived in the house then for eight years, succeeded to the place and took the bedroom successively occupied by Miss B. and Miss T. Mrs. J. died of cancer of the breast and uterus in 1893. Each of these patients appeared to be in perfect health until they took one another's place as housekeeper in the building in which they had lived so long."

Mr. Shattock has previously reported a series of four cases of cancer, three fatal, occurring within fourteen years in persons unrelated by blood, who were living in a single house.

Mr. Blyth's cases were even more striking: "Three successive tenants of a house died of cancer. Mrs. V. frequently visited the last of these tenants, to whom she was not related, and subsequently died of cancer of the breast and lung. Her niece, a girl of fourteen, slept with her and nursed her. She, too, developed a mammary cancer, which was operated upon with success."

The following case was reported in 1892 by Drs. Fabre and Molliere: "In 1873 the owner of a well-built house in Lyons, occupied by well-to-do tenants, died of cancer of the stomach at the age of eighty. He had always lived on the first floor. Four years later a tailor, aged forty-five, who lived in the *entresol*, died of cancer of the stomach. Three years later the porter, who had always been strong and well, died, at the age of fifty-five, of gastric cancer. Two years later a man of thirty-five, living on the second floor, died of cancer of the cervical glands."

The latest series reported is equally interesting. Dr. Scott, of Glasgow, attended three cases having this history: "J. K., aged fifty, employed as a night watchman, and occupying a house of two rooms, died of cancer of the liver. J. L., fifty-four, succeeded to house and work, and died within two years of cancer of the bladder. A. L., sixty, under similar promotion, died of cancer of the stomach in eighteen months. All were previously healthy, unrelated, and without any hereditary transmission."

Even more curious is Dr. Chapman's series of three successive unrelated occupants of a house who became affected with cancer of the rectum.

The above are certainly very significant facts. Their moral, however, is more far reaching than the hygiene of cancer. It is that no

house, at any time containing cases of infectious or contagious disease, should be occupied by the healthy until it has been thoroughly disinfected by sanitary experts. Houses, more than any other thing, are the conservators, propagators, and conveyors of the germs of disease.

KENTUCKY STATE SOCIETY.

In last issue we published the President's Address and two of the many excellent papers read at the 1894 session of the State Society. In this we present our readers with the first installment of the minutes and discussions. It makes good reading. We expect to publish the entire report in the next two or three coming issues. The editors are sorry that they are obliged to apologize for the tardiness of this number. But the delay was unavoidable because of certain complications incident upon the publication of the Society's Transactions. The future issues will be on time.

The *American Practitioner and News* has been for some years the organ of the State Society. That this office is beneficial to the membership will be allowed, we think, when the Fellows take into account the fact that we publish all the papers sent us by the authors, or abstracts of them if they can be obtained.

We send gratis to every member of the Society copies of the journal containing the proceedings, and thus present him with what is practically advance sheets of the annual volume of the Transactions. In view of this favor we think it is not too much to ask that the Fellows will send to us promptly either their papers, or abstracts of the same. The majority of the authors have done this, and here we thank them; but some have failed to do so, and thereby the editor's work has been made difficult and the publication of the proceedings tedious.

We here beg leave to ask that all who have not sent in their papers (or abstracts of them) to do so at once.

If this be done we will guarantee that every Fellow will soon have all the essentials of the 1894 meeting at hand for study or reference, whatever may be the fate of the expected volume of the Transactions.

Notes and Queries.

SAFRANIN REACTION IN SPUTUM.—A simple test as an aid to diagnosis is suggested by Zenoni. It depends upon the fact that mucin is colored yellow by safranin, while albumen is stained red. In the sputum of bronchitis mucin predominates, while in that of pneumonia there is a much larger proportion of albumen. Zenoni therefore prepares a cover-glass specimen of the sputum by spreading the latter out in a thin layer on the former, places it at once in absolute alcohol, and leaves it for a quarter of an hour; by the end of that time the film becomes coagulated and fixed to the glass. The preparation is then stained in a half-saturated aqueous solution of safranin. When the cover-glass is removed it is partially dried and then placed on a white ground and examined. If it is stained a yellow color, mucus predominated in the sputum, and the case may be assumed to be one of bronchitis only, while if a red color appears, albumen was the chief constituent, and pneumonia was probably the condition present. This test, if proved to be trustworthy, would be a considerable aid to diagnosis in those cases in which the physical signs of pneumonia are doubtful. Especially would it be of value in the case of children, if a sample of sputum could be obtained, as can usually be done with a little trouble. But further trial will be required before it can be generally accepted.—*London Lancet*.

LAMINECTOMY.—Riggs (*Annals of Surgery*, June, 1894,) reports two cases of laminectomy for fracture of the vertebræ with compression of the cord. A successful case reported by Macewen in 1888, and the results obtained by W. White and others in the same direction, go to show that extensive resection of the lamina may be accomplished without materially impairing the strength or utility of the spine. Under modern antiseptic precautions the danger of consecutive inflammation of the cord and membranes is no longer to be feared, and hemorrhage is not difficult to control by moderate and prolonged pressure. Nor is the escape of spinal fluid a very serious complication. Riggs concludes that operations for spinal injuries should be done immediately after the accident, and when luxation has occurred its reduction should be attempted by guarded but forced manipulation directly applied to the vertebræ themselves. Pyle (*ibid.*) gives two cases of laminectomy with a tabulated collection of fifty-two cases of the same operation of recent date. Of these two cases one demonstrates in the highest sense the good results of such operation, and the other shows the typical course of spinal fracture with paralysis unrelieved by operation, but with subsidence of pain and the absence of any indication of the fatal issue impending.—*British Medical Journal*.

THE ARREST OF LACTATION BY COCAINE.—Painful fissures of the nipple have, for some time past, been treated by the application of cocaine, either in the form of an ointment or a liniment. It has been found, however, that when thus employed the secretion of milk is diminished and the erection of the nipple prevented. These objections have led Dr. Joire, of Lille, to use cocaine with the direct object of checking the secretion of milk when necessary. He recommends a solution of one gram of cocaine in ten grams of water and ten grams of glycerine, and he advises that this should be used as a lotion to the nipple five or six times a day. He explains the arrest of secretion by the anesthesia of the nipple which results.—*London Lancet*.

THE PLAGUE.—The plague at Hong Kong is becoming less prevalent, though still of an exceedingly alarming fatal character. Several physicians have been taken ill, and one has already died. There have already been some two thousand deaths.—*Boston Medical and Surgical Journal*.

Special Notices.

CHOLERA INFANTUM.—Physicians coincide in their views regarding the treatment of the Summer Diarrhea of infants and children to a degree that enables it to be thus briefly summarized: Diet, emptying the alimentary tract, antisepsis. For the antiseptic treatment, LISTERINE alone, or LISTERINE, aquæ cinnamon, and glycerine, or LISTERINE, bismuth, and misturæ cretæ, will meet many requirements of the practitioner during the summer months.

The following well-tested formulæ are submitted:

R Listerine, ʒj—ij;
Simple syrup, ʒ vij—vi.

M. Sig: Teaspoonful every two or three hours.

R Listerine, }
Glycerine (c. p.), } āā ʒi.
Syr. simpl., }
Aquæ cinnamon, }

M. Sig: Teaspoonful every one, two, or three hours.

R Bismuth, sub. nit., ʒss;
Tr. opii., gtt. xx;
Syr. ipecac. } āā,
Syr. rhei, arom., } ʒij;
Listerine, ʒss;
Mist. cretæ, ʒj.

M. Sig: Teaspoonful as often as necessary, but not more frequently than every three or four hours. This for children about ten or twelve months old.

Thirty-two pages devoted to the management of Summer Complaints of Infants and Children may be had upon application to the manufacturers of LISTERINE—Lambert Pharmacal Company, St. Louis.

METRRORRHAGIA.—T. Henson Smith, L. R. C. P. & L. R. C. S. & L. M., Reddish Green, near Stockport, England, says: I have found the Aletris Cordial useful, chiefly in cases of irregular and difficult menstruations. In one case, a girl of twenty, who

had been under my treatment a year with irregular and painful menstruation, I have been able to afford complete relief by giving the Aletris Cordial in teaspoonful doses, commencing about two days before the period, and during the time of menstruation. I have also tried it in a case of dysmenorrhea, with megrims. The result has been to remove the dysmenorrhea and relieve the headache. I have found it beneficial in many uterine cases.

DR. ANGELO DE BELLOMI, of Città di Amandola, Italy, July 22, 1893, says: I am pleased to inform you of the successful results by the use of your BROMIDIA as hypnotic and sedative. I prescribed it for a lady suffering from Severe Vomiting due to Pregnancy, and which threatened to cause abortion from denutrition. I had previously tried opium, chloroform, creosote, and oxalate of cerium, all without effect. I gave ten drops in a little sweet wine three times a day before meals. The vomiting ceased the first day, four days later I was able to discontinue the use of BROMIDIA, and now, after a month, there has been no return of the vomiting, and the patient is perfectly well.

I have found BROMIDIA excellent in delirium tremens accompanied by insomnia, also in the delirium of typhoid, and in bronchitis with neurasthenia following influenza.

In a case of chronic nephritis, where all kinds of hypnotics, anti-neuralgics, and analgesics had failed to give relief, BROMIDIA, in doses of a teaspoonful morning and evening, gave relief at once, and in a few days effected a complete cure. After such encouraging results, I am sure BROMIDIA has a brilliant future before it.

In the treatment of nervous diseases and general debility, McArthur's Syrup Hypophosphites demonstrates its restorative powers. Here it is not the stimulating action of the remedies usually classed as tonics that is needed. The organic powers of the system are already taxed to their utmost ability to carry on the physiological processes of life. The Hypophosphites of lime and soda gives the much-needed effect in these conditions—not that of a stimulant by irritation, but that of a true nutriment to the starving tissues. Its tonic effects are permanent, as they are the effects of a richer blood supply, bringing healthy food and oxygen to the tissues. Thus the patient is gradually brought up to his normal condition.

THE preparations of "PEPSIN," made by Robinson-Pettet Company, are endorsed by many prominent physicians. We recommend a careful perusal of the advertisement of this well-known manufacturing house.

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THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNĀ.*"

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—*RUSKIN.*

Original Articles.

APPENDICITIS; PATHOLOGY AND VARIETIES.*

BY A. MORGAN CARTLEDGE, M. D.

Professor of Principles and Practice of Surgery and Clinical Surgery, Louisville Medical College.

It has been but a few years since our knowledge of the pathologic changes occurring in the small anatomical structure known as the appendix cecī vermiformis could be compressed into half a page of an ordinary text-book of surgery. Indeed the knowledge of every phase of the subject of appendicitis, including pathology, clinical varieties, etiology, symptomatology, terminations, and treatment, was usually assigned less than a page in any treatise making mention of this disease. As a matter of strange historic interest we have only to go some three decades back to find that previous to that time the vermiform appendix was never charged with being a disease-producing factor except by two or three observers, and the views of these never gained recognition.

Probably the most painstaking and acute observer of this or any previous century was Dr. John Hughes Bennett, the great clinician and pathologist of Edinburgh. In commenting upon a case of peritonitis occurring in a young female, and which was attributed to rupture of Graafian follicles into the peritoneum (although the carefully detailed clinical history and *post-mortem* as read by the knowledge of more recent pathology leaves little doubt but that it was a case of the early rupture of a tubal pregnancy), this great man says: "In such cases

* Read at the June Meeting of the Kentucky State Medical Society, 1894. For discussion see page 153.

(peritonitis) the inspection should never be concluded without a careful examination of the appendix vermiformis, where I have seen minute perforations very apt to escape notice. This part, besides being exposed to all the ordinary diseases of texture, is especially liable to have impacted in it grains of wheat, barley, or other kinds of seed, cherry stones, pins, and a variety of foreign bodies which pass readily through the other portions of the intestines, but which in the appendix may give rise to ulceration, perforation and fatal peritonitis." This was written thirty-five years ago, and while we see in it a tendency to over-estimate the etiological significance of such foreign bodies as seeds, cherry stones, etc., we also determine that whenever observers in any age did, as Bennett did, seek for the explanation of peritonitis by *post-mortems*, they found the vermiform appendix a very pronounced etiologic factor.

Fifteen years after Bennett indicated so forcibly the part the appendix played as a causative factor in acute peritonitis, the leading English author in his text-book of medicine says that "acute inflammation of the peritoneum is a serious disease accompanied with pain and swelling of the abdomen and severe symptomatic fever. It may attack individuals of all ages and of every rank in life, though it is perhaps seen most often among the poor, since cold and damp will induce it in systems enfeebled by bad living." He then goes on to say that in the year 1864 there were seventeen hundred and thirty-six deaths recorded as having occurred from peritonitis in England, and without once making mention of the vermiform appendix enumerates as the principal causes of acute peritonitis cold and damp, mechanical violence, perforation of the stomach and intestine, rupture of the urinary bladder, bursting of hepatic abscess, pelvic cellulitis, and contamination of the blood by morbid poisons, especially perhaps by that of erysipelas.

When the above is the teaching of a text-book used by many physicians in active practice at the present time, is it at all surprising how slow the profession is to adopt the seemingly radical views and radical preventive and curative treatment of peritonitis based on the new pathology? The study of this disease is one alike of vital interest to the physician and surgeon. Instead of being a threadbare one, as the long and numerous articles in the journals might make one believe from a superficial view of the question, we have just commenced to realize its importance and clear the pathologic field. Modern surgery through operations has set aright the cause of this fearful disease, peritonitis.

But a few years since, if the appendix was mentioned as being diseased, it was the custom to refer to it as having become so by extension from contiguous structures, especially the cecum. The reverse has been shown to be true. From our modern knowledge of the pathologic changes occurring in the appendix, and the consequence of such disease to other abdominal structures, we are prepared to say appendicitis is a very common malady; that it presents several distinct clinical types; it may be the most chronic and again the most acute of diseases; that initial attacks which often seem to terminate in resolution leave pathologic changes in the appendix which ultimately lead to the most serious consequences. Finally, acute peritonitis is more often caused by it than by any other intra-abdominal lesion.

The Pathology. The pathology of a disease must ever be the keynote to a rational appreciation of its diagnosis and successful treatment. In order to intelligently follow the pathologic changes which occur in the appendix it is proper that we reflect for a moment upon its anatomy and histology. Mr. Treves' dissections, now confirmed by all anatomists, conclusively prove that the cecum and appendix are completely surrounded by peritoneum, hence all primary pathologic changes originating in these structures are essentially intra-peritoneal. Moreover, the cecum and its accompanying appendix are susceptible of a considerable latitude of motion, and display, probably as a result of this, distinct variations as to location. The appendix proper varies from three to eight inches in length; when attenuated by traction from adherence to some distant organ, as the uterus or bladder, it may even exceed the maximum given; certainly I have observed two appendices eight inches long, one of which was adherent to the right uterine horn and the other free. The appendix is supported by a well-defined mesentery or meso-appendix of very variable length, or, more correctly speaking, breadth. The extent of this peritoneal reflection determines the range of mobility of the appendix, and is (I am satisfied) a decided predisposing cause of disease in this structure. The appendix is slightly curved upon itself, the greatest curvature being near the extremity or tip, and is the result of the peritoneal fold which is reflected from its extremity passing upward to join the general trend and direction of the mesentery. A larger percentage of appendices are found drawn up behind the cecum in normal dissections than are found when operating for disease. Whether the large number found below the head of the cecum in the latter condition is the result of downward displacement by disease, or was

original and the predisposing cause of the disease, has not yet been satisfactorily explained. So far as I have been able to judge, the length of the appendix independent of its mesentery plays no part in the production of appendicitis. The coats of the appendix are a fraction thicker than the similar coats of the cecum; its proportion of solitary glands or lymphoid tissue is relatively greater. The blood supply of the appendix is twofold and of great pathologic importance. That portion of the appendix nearest the cecum receives some nourishment from the general blood supply of the cecum, viz., the vasa-intestini tenuis, but the distal four fifths of the organ is dependent for blood upon the single artery which traces its way between the folds of its mesentery, giving out minute branches which supply the various coats. This artery at times not so small as to be despised, is generally described as being one of several branches given off from a vessel formed by inosculation of the inferior terminal branch of the ileo-colic artery and the vasa-intestini tenuis. Well-injected subjects will demonstrate that the branch to the appendix is terminal, and its size, as well as the facts gained by following it toward its origin, leads to the conclusion that it is the termination of the inferior branch of the ileo-colic or the main branch formed by inosculation with the vasa-intestini tenuis. It should be designated the appendicular artery. Obliteration of this vessel either by artero-thrombosis or by twisting, should the appendix be rotated upon its axis, will inevitably result in ischemic necrosis of the distal parts of the organ. The nerve supply of the appendix is derived from the great abdominal sympathetic system through the superior mesenteric plexus. The lymphatic system is not different from other intestinal tissue, viz., a deep or superficial set of vessels terminating in glands situated between the mesentery. As is well known, the mesenteric glands or lymphatic are very abundant near the ileo-cecal juncture, second in this respect only to the large number found along the course of the duodenum.

The diameter of the appendix is one third of an inch, tapering to a point in its distal fourth; the remainder of its length presents no variation in diameter at different parts.

The cecal opening into the appendix or orifice is closed first as the result of contraction of the circular muscle fibers, and second by the folds of mucous membrane of the cecum which cover it over.

A well-defined valvular arrangement, as suggested by Gerlach, has not been verified by other observers. As far as observation goes it seems

doubtful if fecal matter ever enters a normal appendix. The author thinks we have abundant explanation for this deduction in the probable phenomena of fecal circulation through the cecum. The stimulus to peristalsis and the corresponding muscular response which expends itself upon the ileum and propels the intestinal contents downward must be more or less arrested at the ileo-cecal valve. The fecal freight is dumped, as it were, into the receptacle of the large bowel, the cecum. Here a new force operating in a different direction is necessary to start it on its way. This force, owing to the more fixed position of the cecum and ascending colon, is one that must raise the large and now more consistent mass in a nearly perpendicular direction. This renewed peristalsis must originate at the most dependent part of the cecum and operate in an upward direction. Thus it is that the only force which could possibly tend to carry any of the fecal contents into the appendix would be the simple weight of the same when the cecum was in a passive state. Every effort of peristalsis inclines to carry away from the appendix the fecal matter. Impactions in the cecum by pressure tend to force feces into the appendix, also such impactions by producing textural changes in the cecum mucosa might destroy the normal protecting conditions of the appendicular orifice and render it easily pervious.

Seemingly of pathologic interest in connection with appendicitis is the marked difference in the susceptibility of the two sexes to this affection. The disease occurs four times in males to once in females. Anatomical differences do not account for this in a satisfactory way. The structure in the two sexes seems identical, with the exception of the additional blood supply in the female through the appendiculo-ovarian ligament of Clado. It seems correct to suppose that this explains to a certain extent the greater immunity enjoyed by the female. However, as Clado's ligament is not a constant structure, some observers claiming that it only exists in about one in ten females, this is not sufficient to account for the marked difference.

My observations, confirmed by others, that external violence from falls, blows, and contortions of the trunk may cause rotation of the appendix and twisting of its mesentery, lead to another explanation of the frequency of appendicular disease in males, viz., *the occupation of the two sexes*. That torsion alone by cutting off the blood supply is a cause of destructive changes in the appendix there can be no doubt. One such case, operated upon a few hours after the accident by Dr. J. S.

Chenoweth, demonstrated the twisted appendix perfectly. I have seen undoubted evidence of such a condition in cases operated upon after infection and perforation.

The gross or macroscopic appearance found in the appendix, the seat of disease, may be described as follows:

First: (a) Swollen, tense, congested, dark red or mottled in color.

(b) Swollen, tense, discolored, fibrinous exudates.

(c) The above with cobweb adhesions in relapsing cases.

(d) Perforated and necrotic.

(e) Distal distension very marked, usually the result of stricture from prior attacks; such distal accumulations are at first cystic, later infected, purulent, and perforative.

The appearance here described refers to the appendix proper; surrounding peritoneal changes which may be present had best be studied in the light of sequelæ.

What are the first conditions or changes that take place and make possible the subsequent pathologic history of appendicitis? Here it is proper to remark that the *bacillus coli communis* is a normal resident of the appendicular mucus, and that numerous observers have shown this bacteria to be the organism most often engaged in the production of suppurative and fibrinous inflammations in intestinal and peritoneal tissue. The researches of Fowler and others also demonstrate that the infection of the appendix is most often a mixed one.

Given ever present bacteria capable of pathogenic properties, and a lesion or point of lessened resistance, and we have all that is required to set into activity a pathologic process.

The *locus minoris resistentiæ* is to be found in (a) trauma to the cecal and appendicular mucosa, (b) in vascular lesions, the result of trauma or endarteritis, and (c) ulcerative changes due to tuberculosis, and may be syphilis.

Trauma of the cecal and appendicular mucosa may be caused by the presence of enteroliths or foreign bodies. Vascular lesions by rotation of appendix, thus partially or completely obliterating its blood supply. Endarteritis, so fatal to the tissues supplied by terminal arteries, evidently applies with great force in the appendix. However, we are not prepared to believe with Fowler that intra-vascular lesions, probably combined with chronic nerve lesion, constitute the chief causes of a *locus minoris resistentiæ*.

Tubercular lesions, the subject of secondary infection, furnish a not

inconsiderable number of the cases of appendicitis. Once the infection of an intra-appendicular lesion has taken place, all the conditions for rapid and destructive tissue changes are present, viz., poor drainage facilities, abundance of lymphoid tissue, and a terminal blood supply. The infection of a lesion to the appendicular mucosa, such lesion being the result of impacted enteroliths or tubercular ulceration, will terminate in a suppuration that may empty itself continually through a patulous orifice into the cecum, as does the normal mucous secretion of the appendix. The excretion will contain pus-cells, however, and in no sense should be spoken of or written about as a catarrhal inflammation. These are the cases which furnish the history of so-called chronic or relapsing appendicitis; the explanation of acute exacerbations or relapses is the temporary plugging or obstruction of the communication with the cecum. If such an appendix is undisturbed, one of three results will probably follow:

(a) A firmer occlusion will some time take place, and the distal accumulation will by tension propagate and increase the virulency of the infection, and the case will terminate in perforation either with or without surrounding fibrinous protecting exudates, the presence of the latter being dependent upon the rapidity of the accumulation and the intensity of the microbic infection.

(b) Such a chronic suppurative inflammation of the appendicular mucosa may by lymphatic absorption or direct extension lead to an endarteritis obliterans of the appendicular blood supply, and the appendix proper be reduced to the condition of inert and dead tissue to be rapidly preyed upon by ever-present pathogenic and saprophytic bacteria.

(c) Under favorable local and constitutional conditions such a chronic or acute suppurative inflammation discharging into the cecum may terminate in resolution.

What are the tissue changes found when such a lesion has healed? Does it modify the future function of the appendix? An inflammation of the kind we have described must produce lesions of the appendix walls of greater or lesser extent; such lesions, if they heal, must do so in conformity to the laws governing the regeneration of tissue breaches elsewhere in the body, viz., by the reproduction of new tissue from pre-existing or marginal cells; such new tissue formed under such pathologic conditions can never rise higher in the histologic scale than scar tissue. Hence a cicatrix with all the contractile tendency of cicatricial tissue is the result.

In this sequel of a healed or resolved appendicitis we have laid the foundation for future disease in the appendix years after, as in the stricture of the urethra, first giving trouble many years following the initial attack of gonorrhea. Such a stricture of the appendicular lumen often contracts so as to render it impossible for the normal mucous secretion to discharge into the cecum. The result is sometimes a mucous retention cyst, but more frequently, from the favorable conditions for infection, a suppurative inflammation terminating in perforation. Probably such cases furnish one of the slow varieties of appendicitis, with little pain and ample protecting adhesions or exudates. Thus we see that appendicitis with exactly the same method of origination may be very acute, very chronic, or chronic with acute exacerbations (relapsing). There is scarcely a doubt that many cases of chronic suppurative inflammation of the appendix mucosa are never recognized as such. If a temporary occlusion takes place with moderate fever, tenderness, etc., these cases are called catarrhal appendicitis. All suppurative inflammation in mucous tissues is preceded by an exaggeration or stimulation of normal secretion, viz., the catarrhal state. Evidence is everywhere wanting to prove that a purely catarrhal inflammation, if occurring, is competent to produce symptoms that would deserve the name of appendicitis. The cases of chronic or acute suppurative appendicitis discharging into the cecum, and the distal distensions from stenosis following stricture, are the cases that have by mistake been called catarrhal appendicitis.

Twisting or rotation of the appendix probably gives rise to a rapidly acute form of the disease in nearly all cases. The essential pathology is a condition of acute ischemia, the starved district consisting of the appendix becoming rapidly infected.

Obliterating endarteritis is certainly quite often associated with inflammatory disease of the appendix, but we are not prepared to believe with Fowler in his excellent observations on appendicitis, that trophic nerve lesions leading to intra-vascular changes constitute the most common causative lesions of appendicitis. Rather do we incline to look upon obliterating endarteritis, so commonly observed in the pathology of the disease, as a result of prior changes in the appendicular mucosa.

Fibrinous exudates and peritoneal adhesions around the inflamed appendix are the result most frequently of the passage of the bacillus coli communis through the diseased walls of the appendix to the peri-

toneum, where the proliferation of lymph is excited. That perforation is not necessary for the accomplishment of this is evidenced by the fact that such exudations accumulate in large quantities where perforation has not occurred; and again, perforation of an intra-appendicular abscess may occur before the irritation has been prolonged sufficiently for the production of surrounding exudates. The immediate peritoneal changes which ensue in appendicitis vary from the cobweb adhesions which so often attend relapsing appendicitis to the large exudation wall of an extra-appendicular abscess containing a quart of pus. Necrosis may be so rapid and accompanied by such infectious intensity that the peritoneal response partakes of a spreading fire without any effort at conservatism or limitation, or again purulent accumulations from stenosis may render the appendix rapidly tense until it will burst like an overinflated toy balloon, emptying its septic contents upon an unprotected and undefiled peritoneum. A fatal general peritonitis is the consequence.

The terminations of appendicitis may be enumerated as follows :

1. Resolution with a cicatrix which may lead to future trouble.
2. Perforation with circumscribed abscess.
3. Perforation with diffuse septic peritonitis.
4. Chronic suppurative inflammation discharging into the cecum.
5. Diffuse septic peritonitis without perforation from a dead and necrotic appendix.

Again, the abscess cases may terminate in encysted abscess with destruction of the pyogenic bacteria leading to chronic puruloid accumulations. The abscess may rupture into any of the hollow abdominal viscera, or externally in front, or in the loin.

With a slight modification I would suggest a classification of varieties based upon the pathology of the disease, which I had the honor to present in a paper read before the Southern Surgical and Gynecological Association in November, 1893 :

Suppurative, . .	{	From tuberculosis.
	{	From trauma of appendix mucosa, enteroliths, foreign bodies, etc.
Perforative, . . .	{	From ulcerative perforation.
	{	From rupture of intra-appendicular abscess.
	{	From endarteritis.
Necrotic,	{	From volvulus.
	{	From intense bacterial infection.

**DETERMINATION FOR OPERATIVE INTERFERENCE IN
APPENDICITIS.***

BY AP MORGAN VANCE, M. D.

The committee have allotted to me decidedly the most difficult part of this subject to discuss. There are two sides to this question, which is by far the most interesting and important at present before the medical world—important, because we have so much yet to learn about this disease; interesting, because of the wide diversity of opinion as to the best methods of treatment. One set of authorities hold that surgery is uncalled for, while others claim that upon surgery alone depends the salvation of most of these cases.

There is no question in my mind but that appendicitis is always a surgical disease, and that in the vast majority of instances the medical man only complicates the case by his remedies. In every case of suspected trouble with the appendix he should either surrender the case to the surgeon or go hand in hand with him from the initial symptom.

The signs which determine the surgeon when to operate are so general and so variable in individual cases that to lay down any strict rules is impossible; the decision is so rapid and arrived at by the consideration of so many points that it amounts to almost an intuition. In reality, however, it is the result of surgical experience and constant contact with surgical conditions. You can not depend upon the temperature as a guide, nor the pulse; pain alone is not sufficient, nor is the presence or absence of a tumor; tenderness may or may not be present; McBurney's point is not reliable in all cases; the facial expression by itself is not to be depended upon; rectal touch may or may not be convincing; but when we take into consideration all of these points, along with the age, sex, occupation, and particularly the previous history, we are enabled to make up our minds in the great majority of instances when to operate and when to wait.

It is very difficult to give in detail the process by which these conclusions are arrived at; it is almost always by exclusion and from the consideration of no one symptom, but the whole taken collectively. Many of these cases are perfectly plain, and a decision is made at once, while again, border-line cases are met where we have very little to base a decision upon; but where it is of vital importance to decide, and that

*Read at the June Meeting of the Kentucky State Medical Society. For discussion see page 153.

at once, there may be but one symptom, pain with tenderness, no fever, pulse normal, no tumor or muscular rigidity, only tenderness over the region of the appendix with pain on movement or coughing; yet this patient, as proven time and again by *post-mortem*, may die in twenty-four hours from the initial symptom, of perforative appendicitis. If this case should happen to be a female the diagnosis might be doubly difficult, and these cases are the ones where a little hesitation may allow the golden opportunity to pass, and the death is oftentimes laid at the door of typhoid fever, or the certificate signed acute peritonitis.

One of the most trying positions in which the surgeon finds himself is when called to a case where a general peritonitis is present with all of the signs of collapse and impending death. Shall he operate and give the patient the one chance in a thousand, or shall he refuse for the sake of surgery? A death after operation leaves a lasting impression in the neighborhood, and Smith, who may be in condition to be saved by operation, refuses because Jones, who lived across the street, died after being cut. This is a point for serious discussion, and one that has come up in my experience more than once. This subject is being discussed by the laity very extensively just now, and newspaper articles are appearing constantly which conflict with the more advanced ideas of treatment. A case illustrating this occurred in my practice a few days since, when I proposed an operation in the case of a young lady. A clergyman friend of the family happened in, who gave a note of warning, as he had just read an article in a newspaper which stated that eighty or ninety per cent of these cases recovered without operation; his advice was to get the opinion of some good physician before the operation was allowed. When they saw the gangrenous appendix just on the point of rupturing into the cavity, congratulations were in order that the minister's advice was not followed. Surgery of this kind is in very bad odor with the people; they can see very well the reason for cutting a man's leg off when crushed by a railroad train, but the reason for opening his belly for an attack of colic is hard for them to realize. Hence the great importance of educating them in matters surgical.

In conclusion I will add a few appendicular aphorisms which I hope will cover the subject sufficiently:

First: Appendicitis is always a surgical disease, and the ordinary treatment by opium not only masks the condition, but adds no little to the danger.

Second: The sooner the surgeon sees these cases the better, as a few hours' delay in operating may mean the difference between life and death.

Third: If a case of supposed appendicitis is not well in thirty-six hours after first symptoms appear and the active use of salines, operation should be resorted to as the only safe procedure. Procrastination means more funerals.

Fourth: If in any case doubt exist, operate, as this is the only way to ascertain the exact condition, and the patient should have the benefit of the doubt.

Fifth: If there is a history of one or more former attacks, operate, as there are abundant statistics to prove the great danger of thinking because a first or second attack did not kill that a third will end as fortunately.

Sixth: The great difficulty in this disease is to make a diagnosis; better operate for a diagnosis than to run the risk of this being cleared up by time, when in the majority of cases it will be too late to save the patient.

Seventh: Remember that the statistics from the standpoint of a physician are of no value, as no one can say positively that any case that recovers under medical treatment was appendicitis or not.

Eighth: Do not forget that the operation *per se* in competent hands is unaccompanied by danger; if no condition requiring it is found, no harm is done.

Ninth: Think twice before operating when general peritonitis is present, remembering, however, that a small per cent of these cases will recover after operation, and that death is certain without interference.

Tenth: Do not forget that a calm often precedes a storm; an apparent subsidence of active symptoms is often followed by rupture of the gangrenous appendix and fatal collapse.

Eleventh: Do not be misled by the location of the pain; occasionally this is remote from the appendicular region and may lead one into error.

Twelfth: The gravest cases often have the fewest symptoms. A man may be following his vocation in the morning and in hopeless collapse before night from a ruptured appendix, with no more signs going before than an ordinary bellyache.

Thirteenth: Those cases which have a tumor present may be allowed

more time than those which have none. Inflamed appendices without this protection of nature are the most dangerous; the greatest care is required in handling the former class to prevent contamination of the general cavity, as pus is nearly always present.

Fourteenth: To repeat—if you are in doubt, operate.

LOUISVILLE.

THE TECHNIQUE OF APPENDIXECTOMY.*

BY H. HORACE GRANT, A. M., M. D.

Professor of Surgery, Hospital College of Medicine, Louisville.

Though the conditions under which I make this report may indicate that the questions of pathology, diagnosis, and propriety of operative treatment are not my business, yet I may be allowed a word in explanation of the pre-technique. While all the currents and pathways of the pathology of appendicitis are not yet explored to unanimous concurrence, it is settled that the first step in the lesion is invariably the initial phenomena of inflammation, whether physiological or pathological. And though this inflammation may remain physiological (so-called catarrhal appendicitis), it must not be forgotten that we have here the most favorable of all conditions for septic infection. These first steps establish a *locus minoris resistentiæ* favorable for the colonization and propagation with almost inconceivable rapidity of septic bacteria, and this nidus is in the heart of the enemies' country, the camp of the bacilli coli communis (whose rôle is certainly important if not exclusive), but over the hill. The danger is much as if one place a ripe apple in the close vicinity of a hornet's nest. The hornets may not attack it, they may bore into it once or twice and seek other pastures, or they may riddle it to ruin. Surely if the apple or appendix could be safely removed at the earliest possible moment, it should be done; but in the case of the appendix at least, even if the operation in skilled hands is practically without mortality, it is not by any means always a feasible step. The question rather is, must we regard the danger to life in the less severe forms of appendicitis so threatening as to demand insistence on operative steps in the face of clamorous objection and serious inconvenience? Certainly the overwhelming majority of practical men still

* Read before the Kentucky State Medical Society, at Shelbyville, June 7, 1894. For discussion see p. 153.

say "No!" In those cases severe at the outset, in those progressing even with milder symptoms without relief for forty hours, the answer is changed to "Yes," though delay, hesitation, and unsuitable surroundings will often protract the case to a hopeless condition.

The operative technique is to be considered as applying to four pathological conditions:

First. The incipient stage, before the formation of strong adhesions or pus. The same technique applies also to the so-called intermediary operation.

Second. Removal of the appendix with adhesions and probable suppuration and gangrene.

Third. Incision and exposure of diseased structures without attempting removal of appendix.

Fourth. Operation in general peritonitis.

Preparation of the patient in the first class is as in other elective operations on the abdomen, except that purgation is not to be employed beyond a saline laxative, not repeated.

The incision preferred by Fowler* is oblique, beginning to the right of the semi-lunar line, over the tumor or situation of the appendix. The deep epigastric veins are in the line of the prolonged direct incision. The Trendelenberg posture may be employed in this first class of cases, but is unnecessary. The one and one half inch incision of Morris† is rarely enough, and no valid objection can be made to lengthening it either up or down, or to lateral cuts if conditions arise demanding it. When the cecum appears the appendix is found by tracing the central longitudinal band to its terminus, where the appendix is always attached.

When the cavity has been opened the relation of the appendix to the ileo-cecal juncture offers a valuable guide in troublesome cases; the root of the appendix is always within an inch and a half of this junction. No pus is expected in this class of cases. Adhesions are carefully separated, and exploration with the finger for possible collections of pus made between the cecum and the iliac body.

The mesentery is now tied with fine catgut and cut away. The vermiform is ligated with silk, cut off three fourths of an inch in length, tucked into the cecal wall and buried with Lembert sutures of silk. Better still, I think, is to invaginate the end of the appendix into the cecum and close with Lembert sutures of silk. All this supposes no

* *Annals of American Surgery*, March, 1894. † *Mathews' Medical Quarterly*, January, 1894.

considerable septic conditions present; no drainage is required. The abdomen is closed as after celiotomy for other lesions, according to the practice of the operator.

Second Class. The second class of cases presents operations upon patients seen from the third to fifth day (or later) of the illness as a rule. In these cases adhesions have already begun to form, in some instances strong enough to wall off the peritoneal cavity, in others so friable as to be readily broken down. The difficulties here are much greater than in the first class. The Trendelenberg position is unsafe, lest liberated septic products flood the cavity. The same incision is to be made as above described, except it should be free enough to admit of easy access to the parts. When the situation of the abscess is reached, protection to the peritoneum should be insured by gauze and towels introduced into the wound so as to prevent the admission of any pus that may be dislodged. These towels should be wrung out of a solution of bichloride one to one thousand, and should thoroughly protect the cavity. The adhesions should then be carefully parted, and search made for pus collections between the cecum and the pelvic wall. If any pus is evacuated it should be carefully wiped away until all has been expelled; clean gauzes should then be applied and search made for the appendix. It is to be borne in mind that the appendix itself may form a part of these adhesions, and its disturbance may seriously endanger the welfare of the patient. Under these circumstances the propriety of its removal or of further search for pus collections is a question that must be left to the judgment of the surgeon. If the condition of the intestinal obstructions makes a complication of the operation, the propriety of complete investigation is unquestionable. These conditions should always be explored, as the risk of leaving the adhesions that cause the obstruction is greater than the danger of breaking them down.

The treatment of the appendix itself in cases of this class is much the same as in the first class, except that after it is ligated its cut edges should be cauterized with pure carbolic acid; an ordinary needle dipped into the carbolic acid and rubbed over the cut edges of the stump answers the purpose. The excess of carbolic acid can be wiped away with a little gauze and the stump covered with a portion of the peritoneum or mesentery. The mesentery of the appendix should be ligated separately. After all is finished these wounds should be wiped out with sponges dipped in one to two thousand solution of mercury, especially

if there have been any evidences of pus or gangrene; a drainage-tube should then be introduced and the wound closed around it as after other operations of this character.

Third Class. When conditions such as described above, namely, abscess, gangrene, and evidence of septic appendicitis exist, together with adhesions sufficiently strong to resist ordinary manipulations, and especially when the appendix is so placed as to form a part of these adhesions, particularly when pointing toward the median line of the body, it is the voice of the profession at large that the wiser course is incision and drainage without destruction of these adhesions. The danger of infecting the peritoneal cavity is greater than the risk of leaving these infected particles of *débris* in their present situation. Thorough irrigation of the parts, the release of all purulent collections safely accessible, and packing with iodoform gauze constitute the technique of this class. After the abscess has been evacuated and cleansed, provisional sutures of silk-worm gut, to be tightened at the fourth or fifth day of the convalescence, are introduced.

Bearing on this matter I read the following very late opinion :

Of these fourteen cases, eleven were operated upon by myself during the last two years. All on whom I have operated in this manner have recovered, and none that I am aware of have had any trouble with the retained appendix since. As the mortality has been much greater when I have removed the appendix, I now rarely do so unless the appendix is unruptured, or, if ruptured, only when general peritonitis has occurred. Of these eleven cases I have been able to follow the history of eight, several of whom are here to-night for examination. The three whom I have not been able to find were hospital cases; two of them were brought to the hospital by physicians. If either of these had had a recurrence needing surgical aid I should probably have known it. Of the eight whose histories I have been able to follow, none have had the slightest symptom referable to the appendix since the operation. No tumor is to be felt, and no tenderness. Indeed, they all appear to have been singularly free from diseases of all sorts since the operation.

From the uniformity with which full and complete recovery has occurred in the few cases that have come under my care, it looks as though the appendix is not very liable to give trouble if permitted to remain. Indeed, I think it is quite likely, in cases such as we have been considering, that the opening from the appendix into the intestine is closed early in the attack—closed quite as firmly as any ligature would close it, and there is but little probability that fecal matters will ever be again able to enter the appendix, either to cause a fecal fistula to follow the operation or to start another case

of appendicitis in the future. If it were not firmly closed the pus would never have broken through the walls of the appendix, or, having broken through, the resulting abscess would not have increased in size, but would have emptied itself through the appendix into the bowel.

To further illustrate the strength of this obstruction at the base of the appendix, I have observed, in several cases where fecal fistula followed appendicitis, that in none did the feces make their exit through the appendix, but through other portions of the intestines, showing that the inflammatory deposit closing the appendix was even stronger than the healthy bowel.

The mortality following operations for appendicitis is mainly due to general septic peritonitis and to intestinal obstruction.

If we will look into the cavity of a fully-developed abscess such as we have been considering, we can readily see how these complications may follow the search for or removal of the appendix. The cavity of the abscess is lined with a thick layer of grayish, poorly organized, aplastic lymph, filled with micro-organisms. The appendix lies buried beneath this lymph, and its cavity communicates freely with the general abscess cavity. The opening can occasionally be seen, and is often the only guide by which the position of the appendix can be recognized. To tear up this fragile and infected lymph, and distribute it through the peritoneal cavity while searching for and liberating the appendix, would greatly increase the probability of establishing a general septic peritonitis.

Intestinal obstruction following operations for appendicitis is probably due to kinking of the recently separated intestines. As they reunite, covered and stiffened as they are by inflammatory deposits, they can not adjust themselves as readily as at the first formation of the abscess.

To avoid any misunderstanding, let me state that it is only in cases of circumscribed abscess that I have permitted the appendix to remain. When it is still unruptured, or in general peritonitis or obstruction, it should be removed.

Tait, in England, and Reclus and Schmidt, on the Continent, as well as many others, content themselves in these cases of local purulent peritonitis with protecting the peritoneal cavity and draining. Others, however, still consider that no operation is complete without removing the appendix. In the March number of the *Annals of Surgery*, Fowler advises in these cases the removal of as much of the appendix as can be done without separating adhesions, but considers it necessary to remove the rest of the appendix at a second operation.—*J. M. Barton, College and Clinical Record, May, 1894.*

Some surgeons prefer to anesthetize the patient a second time after a week, and refreshen the edges and introduce new sutures at this time. Either course may be employed. The drainage by means of iodoform gauze is to be kept up until the bottom of the wound is covered with healthy granulations. Quite a considerable number of skilled operators

in this country and Europe have reported cases treated in this manner, and the tendency is now against the complete operations in conditions such as I have just described.

Fourth Class. This represents one of the most hopeless conditions to which a surgeon can be summoned. It is the result most commonly of perforation of the appendix with the escape of its contents or of septic purulent collections into the cavity. Occasionally septic peritonitis develops without pus or perforation. The gravity of the condition, however, is much the same. This condition may arise even within the first twenty-four or forty-eight hours, and indeed it is always to be remembered that appendicitis often remains latent for even weeks or months, suddenly bursting into general peritonitis by a rupture or perforation. The symptoms of general peritonitis are familiar to you all. All operations under conditions of this kind are to be undertaken only under an understanding with the patient or the family that the condition is almost hopeless, either with or without an operation, and that there is nothing to be hoped for by the expectant plan. Incision in the median line, and irrigation with some antiseptic solution as the choice of the surgeon may indicate, the introduction of wicks for drainage after the manner suggested by Morris, together with some constitutional treatment and stimulation, constitute the proper course. Of course if the patient recover from the immediate gravity of this condition he is to be treated upon the same general plan as indicated in similar operations.

After-treatment. It is very well after the successful technique in the first class of cases, and perhaps also in the second, to employ in the first twenty-four hours a mild saline. Under those circumstances, however, where the security of the ligature is doubtful, and especially where there is a risk of leaking, the bowels should be moved by injections; the propriety of washing out the stomach is perhaps questionable on account of its disturbing the patient; where, however, there are evidences of intestinal obstruction it is well to employ lavage. The administration of morphine in the early hours after the operation is employed only when absolutely necessary; most surgeons believe it conduces to interference with the intestinal circulation and is an unwise plan. Intestinal obstruction is oftentimes due to the reforming of adhesions, and not infrequently develops from the fifth to tenth day, and occasionally even later. If it persists in spite of the proper treatment, the propriety of reopening the abdomen is unquestionable. Where peritonitis exists,

and the obstruction is the result of the paralysis of the intestines, nothing is to be hoped for by a second operation. These cases all die, whatever the treatment, and it is no credit to surgery to inflict additional operations upon them. Fecal fistula and ventral hernia are occasional complications after this as after other laparotomies and operations upon the intestinal tract, and their treatment is in nowise different. The patient should be kept recumbent three weeks.

LOUISVILLE.

CITY SANITATION, WATER, GARBAGE, AND SEWERS.

BY W. P. WHITE, M. D.

Health Officer of the City of Louisville.

The effects of city life upon the health and vitality of those subjected to it form an increasingly important subject for investigation and study by the physician, sanitarian, and philanthropist. Within recent years there has been a marked advance in the apprehension and the improved method of dealing with the complicated and difficult questions involved in the relations of public health to municipal government in our rapidly growing cities.

The history of our profession presents in every branch a record of ever-spreading additions to our knowledge acquired by careful observation and experiment. Among the divisions of our complex science, not a few of which are becoming differentiated and distinct, none has pursued a path of more uninterrupted progress than sanitation.

Sanitary science is no longer founded on ignorance and empiricism, and made to fit in with notions engendered by prejudices or imperfect information; but it is pursued on a line of careful and systematic investigation, influenced by, but not entirely subjugated to, the prevailing speculations and discoveries in pathology.

Primitive, crude, and inefficient sanitary methods are gradually yielding to the obvious necessity for better and more effectual protection of the public health and comfort; still, it must be conceded the sanitary condition of our cities is far from what it could and should be.

The most important features of city sanitation are embraced in the disposition of garbage, sewer connections and drainage, and especially pure water.

The necessity of pure and wholesome water may at once be appreciated when we recall the facts that about seven eighths of the human body is water; at least three quarters of the earth's surface is covered with it; the air is full of it in the form of vapor; and all animal and vegetable substances, and many mineral substances, are largely made up of it. But though water is so plentiful it is never wholly pure; even that which falls as rain is soiled with matter washed out of the air, such as dust and smoke.

J. W. Hill, in an article on Typhoid Fever in American Cities, published in *The Engineering Record*, gives us the result of a compilation of the statistics of that fever from the seventeen principal cities of the United States the following average mortality per 1,000 population, for the four years 1890 to 1893 inclusive: Boston, 0.34; Providence, 0.37; New York, 0.21; Brooklyn, 0.20; Philadelphia, 0.52; Baltimore, 0.45; Washington City, 0.76; Pittsburgh, 1.04; Buffalo, 0.40; Cleveland, 0.55; Detroit, 0.35; Chicago, 1.00; Milwaukee, 0.33; St. Louis, 0.51; San Francisco, 0.41; Cincinnati, 0.53; Louisville, 0.81.

He also cites the statement from Dr. Louis C. Parkes' *Treatise on Hygiene*, that in the city of London for the decade 1871-80 the death-rate from typhoid fever was 0.24 per 1,000 of population, and for the decade 1881-90 it was 0.18 per 1,000 of population, adding "that six of the eight London water companies take their water from the river Thames, a stream nearly as vile as the Chicago River, yet by careful filtration of the Thames water the quality is so much improved that the typhoid death-rate of London is but one fifth that of Chicago. And thus cities like New York, Brooklyn, and Boston, which depend upon impounded water, gathered on watersheds at considerable elevation above the respective cities, suffer less from typhoid fever than cities like Philadelphia, Pittsburgh, Cincinnati, Louisville, and St. Louis, which draw their water supplies from sewage-polluted rivers."

There is a pretty general consensus that river and lake waters are purer than spring and well waters, because they consist of rain-water, which is the purest, and the water of streams which run only over the earth's surface, while spring and well waters come up through the earth, where they become mixed with solid matter. When water flows through a town, or near sewers connecting miles of houses together, it takes up impurities from the drainage, and the spores or seeds of disease find their way from house to house. It thus sometimes becomes even poisonous, and often causes typhoid fever.

The different cities adopt various modes for disposing of the garbage. Seaport towns put their refuse matter into scows, towing it out to sea and burying it beneath the waves. But it has been discovered that, under cover of darkness, the limitation within which these scows are allowed to discharge their death-laden cargoes is disregarded, and this vile matter is frequently washed back to the adjacent shores. Some cities have tried the experiment of collecting the garbage and offal for purposes of sale. This presents dangerous and insuperable difficulties. Its necessary detention at some point where gathered together, even for a few hours before it is taken away, results in poisonous exhalations; then its transportation through the streets, and the last but by no means the least objection to this system is the fact that this vile stuff as a rule, when sold, is used to feed animals, which are in turn killed and brought into the city markets. In this connection it may be said that the report of the Massachusetts State Board of Health for 1888 shows that in swine fed upon the city refuse of Boston over twelve per cent were found to be infected with trichinosis, and of those fed upon the garbage at the public institutions of the State, seventeen per cent.

Other cities have used the garbage for filling ponds and low lands; for this coal ashes are unobjectionable, but they should be kept free from putrescible matter. For the latter and any other form of disease-germinating waste fire is the only safe end to which it can be committed, for it is nature's greatest disinfectant. All cities will eventually come to the cremation of garbage as the simplest, safest, and cheapest solution of the question. Cleanliness is a paramount necessity for freedom from diseases of contagious character; plagues and pestilences of various kinds show a strong affinity for the filthy. I am an earnest advocate of thorough and general sewer systems, constructed upon the most approved plans. And so far as practicable these sewers should be placed in the alleys. The street drainage should be to the alleys, and certainly a transfer of the catch-basins from the front of our houses to the rear would be a welcome change. Our city has a most excellent ordinance that I would commend to the attention of health boards. It requires, first, "That all owners of houses in the city, situated upon lots abutting upon a street or alley in which there is a public sewer, shall connect all drain-pipes of such houses with said sewer." Second, "It shall be unlawful for the owner of such house to keep or maintain a dry-well on such lot or to drain any privy matter into same." Its purpose is to break up the practice of using drain-pipes to empty filthy

water and other refuse into the gutters, streets, or alleys, where with dampness and solar heat in the summer months it produces the most deleterious effects.

The first object of medicine, it has been well said, is to prevent disease, and the next to cure or relieve it; and the nearer we approach to these ends the more successful may we claim to be. Hopes for the future clearly lie in the direction toward a better comprehension of the nature of life, and inferentially of disease; toward improvement in the methods of research into the causation of disease, and the avoidable or preventible causes of disease. Vital statistics furnish us with ample data for estimating the increasing value of preventive and remedial processes or agencies in improving health and lengthening life.

Etiology must be sought chiefly in our surroundings—the air we breathe, the water we drink, the food we eat. How immeasurable is the distance which separates the mental attitude of the inquirer of to-day, engaged in tracing the causation of an epidemic disease, from the mystics who bewildered themselves with the notions of malignant spirits, of evil humors, or even of “epidemic waves”!

Until the evolution of bacteriology into a distinct department of science we had no clear ideas as to how pure air and pure water operated in bringing us health, and along this line sanitary science has made great development. Sanitary science seeks to check the growth of disease-germs, and to destroy those already developed. To fight an invisible foe is difficult work, but we are steadily improving our ways of doing it. Measures which the experience of a comparatively recent period has taught us to practice have produced results so satisfactory as to encourage us in their further extension. For example, there is now no need of much interruption to commerce on account of cholera, because we know the cholera organism, can tell whether it is present, and know how to destroy it. Parasitic pathology has made great strides, and there is no question that the study of bacteria and bacilli has greatly widened our views of the nature of the disease, and led to the most practical results of the first importance as regards its prevention and modification. Especially has this been true when employed in certain infectious diseases, such as cholera, scarlet fever, typhoid fever, and diphtheria. In many instances this better knowledge of the nature of the disease and of its remedy has enabled us to extinguish them at their primary focus.

Sanitary science clearly points out certain duties for us to perform

for self-protection that are yet imperfectly carried out and in many instances sadly neglected. There is need for more definite and precise knowledge as to the causes of disease and the relations which they have to circumstances which may and should be controlled by the community as a body, and not be left to individual action. There are things affecting the health of citizens over which the city has chief or exclusive control, and for the existence and condition of which it should therefore be held to a corresponding amount of responsibility. But it must be remembered that the requirements of a city as regards public health and comfort must be considered in connection with its other needs. Its means are limited, and it can only apportion these to the several requirements as wisely as possible.

LOUISVILLE.

Reports of Societies.

KENTUCKY STATE MEDICAL SOCIETY.

Thirty-ninth Annual Meeting of the Kentucky State Medical Society, held at Shelbyville, Kentucky, June 6, 7, and 8, 1894.

[CONTINUED FROM PAGE 114.]

FIRST DAY—EVENING SESSION.

The Society was called to order by the President at 8 P. M.

Dr. O. D. Todd, of Eminence, First Vice-President, took the chair, and President Stewart delivered his Annual Address. He selected for his subject "The Education, Training, and Medical Treatment of the Feeble-minded."*

The Hon. G. G. Gilbert, of Shelbyville, delivered a popular address, entitled "We are Approaching the Truth."

On motion the Society adjourned until Thursday, 9 A. M.

At the close of the evening session a reception was tendered the members of the Society by the Shelby County Hop Club at the Layson Hall.

SECOND DAY—MORNING SESSION.

The Society met at 9 A. M., and was called to order by the President.

*Published in *American Practitioner and News*, Vol. XVIII, No. 1.

Under the head of "Miscellaneous Business" Dr. T. H. Stucky, of Louisville, asked for information. Are the reports of this Society, its minutes and discussions, as taken down by the stenographer, allowed to be published in any journal except the journal which publishes our proceedings annually?

Dr. Bailey: The stenographer has never made abstracts of the proceedings of this Society. The matter belongs to the Society, and when presented to the Secretary we incorporate or publish it in any medical journal that may desire it. I will say, however, that the American Practitioner and News for four or five years past has paid half of the expenses of the stenographer, and has been publishing the reports of the proceedings almost exclusively.

Dr. Stucky: There is an agreement then between this journal and the Society which entitles it to all the papers and discussions, and a member has no control over his paper?

Dr. Bailey: The paper belongs to the Society, but any member can publish it in any journal he desires after the American Practitioner and News and the Society are through with it. A member need not publish his paper in the American Practitioner and News if he does not desire it. It is only the discussions that this journal lays claim to. If the stenographer desires to make abstracts of the papers and copies of the proceedings for other journals, he can do so.

Dr. Stucky offered the following resolution, which was unanimously adopted:

Resolved, That we commend the action of the Kentucky Pharmaceutical Association in bringing the National Formulary before the Kentucky State Medical Society, and heartily indorse the reform intended in the use of preparations of known composition instead of proprietary medicines.

Dr. J. N. McCormack, Bowling Green: We have present at this meeting a physician, who is a resident of this town, and who is probably now the oldest practitioner in Kentucky, he having graduated from the University of Virginia in 1830. Thirty years ago he was President of this Society, and elected at the meeting which was held here. When the recent law went into operation this gentleman applied for a certificate, and sent his fee to the State Board of Health, which was returned to him with the statement that it was a sufficient honor to the profession to have him a member of it without requiring of him a fee. I refer to Dr. German Baker, of Shelbyville. I move that Dr. Baker be

elected for life an honorary member of this Society, and that he be invited to attend its future meetings and occupy a seat on the platform with the President of the Society.

Seconded and carried.

Dr. J. N. McCormack, chairman of the committee to report on a plan for organizing a medical society in each county of the State auxiliary to the State Society, read the report.

On motion, at the suggestion of the reader, a committee of three was appointed to consider and report upon the features of this report at next meeting. The committee consists of Drs. Carpenter, Shirley, and Bailey.

A series of papers was then read, as follows:

1. "Appendicitis; Its Varieties and Pathology," by Dr. A. M. Cartledge, of Louisville. [See page 129.]

2. "Diagnosis," by Dr. F. Dunlap, of Danville. This paper was called for and passed in the absence of the author.

3. "Determination of Operative Interference," by Dr. A. M. Vance, of Louisville. [See page 138.]

4. "Operative Interference," by Dr. H. Horace Grant, of Louisville. [See page 141.]

The discussion on this symposium of contributions was then opened by Dr. L. S. McMurtry, of Louisville, and continued by Drs. John A. Larrabee, John A. Stewart, J. G. Carpenter, Louis Frank, C. B. Schoolfield, R. C. Falconer, F. C. Wilson, F. J. Yager, H. T. Norment, Samuel E. Woody, and in closing by the authors of the papers.

DISCUSSION.

Dr. L. S. McMurtry, Louisville: In regard to the etiology of the disease, it has been so thoroughly covered by Dr. Cartledge's paper, who has made himself thoroughly familiar with the subject from a practical standpoint, as well as from his contributions to our literature, that I feel there is nothing left to be said in the discussion. If we do say all that has been said and stated regarding appendicitis, we are still a great deal at sea as to the exact cause of this murderous disease. I have no doubt that the appendix is a rudimentary organ. It has a great diversity of anatomical sites and relations, and is so related to the intestinal tract that its fecal contents are switched off from the current of the intestinal tract and there lodged in a way that is very conducive to inflammatory processes, ending in ulceration and other destructive pathological conditions. I believe the anatomical relations of this organ have a great deal to do with this disease. There is the greatest diversity occurring in different individuals. I have seen an

appendix of very small size in adults. In one case that I saw it measured ten inches in length, lying spread over a large ovarian cyst. As one of the essayists stated, we are not in a position as yet to say that the length of the appendix has much to do with its liability to disease, but undoubtedly the variations to which the appendix is susceptible within physiological limits justify us to look to it to find the cause of the disease.

In the second place, the bacteriology of this subject is very interesting and important. The bacterium *coli communis*, which exists in the alimentary tract all the time, is a micro-organism that has been found by careful observers in every case of perforative appendicitis that has been examined. These micro-organisms have been found in the lungs in cases of appendicitis by metastasis. In perforative appendicitis, between the cavity of the appendix and an abscess sac, we find colonies of the bacteria *coli communis*. This is an important fact, and a bacteriological contribution to the etiology of this disease. These observations are so new that we are not justified in saying how much they have to do with the origin of the disease. All are agreed, however, just now that the traditional cherry seed or grape seed has little to do with the causation of appendicitis. I have operated for the disease in one case upon a child seven years of age. There are cases on record as young as two years, and appendicitis sometimes occurs in people past fifty years of age; but between ten and thirty is the age that persons are most liable to this disease. It is very exceptional to find foreign bodies, such as seeds, in the contents of the appendix, and we know how universal is the habit among people of eating fruits that have small seeds. Most frequently the diseased appendix is found to contain a fecal concretion, yet it is not uncommon to find a fecal concretion in an appendix that is not diseased, and I think, if you will excuse the apparent paradox, that the most common cause of appendicitis is a previous attack of the disease. However it may be, I believe the exposition of the pathology of the affection and its etiology, as presented this morning to the Society, cover every thing up to the present time that can be touched upon as being reliable.

Dr. John A. Larrabee, Louisville: I am on the outside so far as this question is concerned, and yet as a physician I can not but be interested in it. In this discussion I desire to say that the doctor has a place in the surgical bearing of appendicitis or peritonitis, or both. I think conservatism has been illustrated this morning, in the papers that have been read, to a greater extent than for years in the Society with reference to this matter; but the part the medical man plays in the diagnosis of this affection is more than was admitted by one of the papers.

With reference to the operative procedures in appendicitis I have nothing to say; but in the discussion of this subject peritonitis was included and appendicitis made the *fons origo et mali* of the whole business. I think appendicitis can come from other causes than those mentioned. I am prepared to hear almost any thing and every thing, but I must confess I was not prepared to hear such an advance in pathology as was made by one

of the essayists, namely, that we can have a physiological and pathological inflammation. I have not yet gotten to that point. I have learned that all inflammations are pathological. In the staking out of this ground it is not left entirely to the surgeon, as will be seen by two cases which I will briefly cite. I was called to see a patient for whose family I have prescribed for many years, but was not at home, and a surgeon was called. The man had been subject to attacks of bilious colic. I knew that fact. The surgeon did not. In three days from the time I received the call an operation was to be done for appendicitis. An operation was performed, and the appendix was found in a normal condition, so decidedly so that the surgeon would not take it out; but the patient's gall-bladder was found to be full of calculi, with one calculus in the ductus communis choledochus.

In another case, in which three competent physicians and one surgeon were called, it was said that there could be no doubt about the trouble being peritonitis originating in the appendix, and no course remained to be pursued other than that of surgery, as other treatment would be disastrous and positively culpable. However, the case was put on what would seem to be to-day condemned treatment—opium. The patient was put upon large and gradually increasing doses of opium to the extent of tolerance or holding the pain in abeyance. That patient lived, and has been for a year a most active man in business in the city of Louisville. He recovered in fourteen days from what was considered to be a form of peritonitis having its origin in the appendix.

I will close by asking a place for the "scrub" doctor who, in the brilliant advance of surgery to-day, is likely to be crowded out.

Dr. John A. Lewis, Georgetown: Apropos of this question under discussion, occupation has a good deal to do with the cause of appendicitis. The fact has been mentioned that it is much more common in man than in woman, and this is correct.

The question has been asked recently in some of the New York hospitals: What is the difference between the blood supply in the appendix of a woman and that of a man? I do not know that there is any difference. It is important for us to make the diagnosis early. It will aid us in determining whether we have a case of appendicitis or not. In an ordinary case of colic, if you inquire into the history of the patient, as a general thing you will find there has been some imprudence in diet. If the case be appendicitis, and you inquire into the cause, you will find there has been something in the occupation of the man that predisposes to it. To illustrate: I have had four cases within the last year, two caused by the men using a wood-saw. If a man who is not accustomed to using a buck-saw use one vigorously and has colic the next day, you may put it down that it is a case of appendicitis. The third case was caused by a man following a pond-scraper, and the fourth by riding a horse. Exercise is one of the points to be taken into consideration in the causation of appendicitis. If it is appendicitis, a violent exercise produces it. If it is colic, it is impru-

dent diet. I am perfectly satisfied that in following a pond-scraper, using a buck-saw, and riding horseback the anatomical relations are such that we have in these forms of exercise an important point which may enable us to make an early diagnosis.

Dr. J. G. Carpenter, Stanford: I wish to indorse what Dr. Lewis has said in regard to imprudence in diet and violent exercise and trauma in the production of appendicular inflammation. My experience has been similar to his. An early diagnosis is every thing to the patient, to the family, to the physician, and to the surgeon. We can not make a diagnosis absolutely when appendicitis *per se* is present. We know there is a pathological lesion there that if left untouched will cost the patient his life. So we must be prepared, if we find one or half a dozen things, to save the patient's life when we open the abdomen. As to operative interference, we should operate while the patient has a living chance, and if we operate and death occurs, a *post-mortem* is made and the pathological specimen shown to the family, which always teaches them that delays are dangerous, and that "procrastination is the thief of time," and has caused the death of the patient. Show the pathological specimens to the family, and one death will convert a whole community and perhaps save a dozen or three dozen lives in each county.

As to the bichloride solution in irrigating the abdomen, it seems to me that the use of hot sterilized water is more preferable. It is better to be absolutely clean than to attempt to sterilize dirt in hot water.

Dr. Louis Frank, Louisville: In the subject of the pathology of appendicitis, I think the doctor referred to catarrhal inflammation of the appendix. I have seen two cases, *post-mortem*, where there was undoubtedly a catarrhal condition, and this condition of the appendix frequently leads to the perforative form, and those forms upon which we operate, by producing stricture on account of the swelling of the mucosa and of the rich lymphoid tissue there. There is no reason why cases of catarrhal appendicitis should not cause rupture as well as the suppurative and ulcerative forms of the affection.

Dr. McMurtry has well said, that in all cases of perforative appendicitis the bacilli coli commune have been constantly found. Park, of Buffalo, reports it as having been found in all cases in which there was perforation by subsequent culture experiments, no other organisms being present.

Another important point in the pathology is the occurrence of leucocytosis in these cases. In all his cases where there was perforation, an examination of the blood previous to operation showed the presence of leucocytosis, except in one instance in which operation was delayed merely on account of the absence of leucocytosis. This patient died.

I think Dr. Vance struck the key-note when he said appendicitis is a surgical disease. I believe that all cases of appendicitis, whether catarrhal or no matter of what character, belong to the surgeon; if these cases reach the surgeon in time we should have less deaths from operative interference. The reason the statistics of the surgeon are not as good as they should be,

is because he sees his cases entirely too late. He sees a great majority of them at times when operative interference has little chance of success.

As to Dr. Grant's paper, I agree with Dr. Carpenter that the use of bichloride is bad in any surgical work, and especially in the abdominal cavity. We know, in our studies, that if we do not use a bichloride solution of the strength of 1 to 2,000, it has absolutely no power to destroy bacteria in which pus appears, and it is incapable of preventing the introduction of germs for the time, or also of forming an insoluble albuminate coat about these organisms which may also inhibit their growth for a while and prevent further absorption when the coat is destroyed by the alkaline serum.

In closing I will read some statistics. According to Ranvier it is shown that in the Prussian army there were two thousand cases diagnosed as appendicitis and not operated on, with 96 per cent of recoveries. It is not stated how many cases were operated on, nor is the percentage of cures from operation given. In the Charité Hospital in Berlin, up to the 1st of January, 54 cases were reported on which no operation was done, with 94.5 per cent of cures. Nothnagel, of Vienna, reports 65 cases not operated on, with 95 per cent of cures. This looks a very large percentage from the medical aspect of the cases or the medical treatment of them; but as I have previously said, none of the reports state how many cases were operated on. Richardson, in this country, who has operated 152 times for appendicitis, in an article appearing before the 1st of January, 1894, reports 62 cases of acute appendicitis operated upon, with a mortality of 19 per cent, and 88 cases not operated on, with a mortality of 34 per cent.

Dr. C. B. Schoolfield, Dayton: There seems to be some difference as to the position of the physician and the surgeon in this disease. It seems to me they should be co-operative. The particular point to which I desire to call attention is the time of operation. There is probably no disease that tries the judgment of the physician as much as that of appendicitis, and I believe I am thoroughly in accord with the surgeon in this matter when I say that whenever there is the formation of pus it is time for the surgeon to operate and remove it; but until we have positive knowledge that pus has formed around the appendix the surgeon is not justified in opening the abdomen. I have had in the last year two or three cases of appendicitis to come under my observation. I had in consultation with me the best practitioners, and it was a hard matter to determine the exact point where the surgeon should come in in those cases. Neither of them had arrived at the point of supuration, and that was the point of decision in our cases. Wherever we find pus we should operate, and the appendix should be removed. If we have a patient with a good temperature and low pulse, although there may be decided tympanites, swelling of the abdomen and tenderness, unless there is chill or evidence of the formation of pus, it is certainly bad surgery to open the abdominal cavity. But when there is evidence of the formation of pus around the appendix, it is good surgery to operate, and if necessary to remove the appendix.

Dr. Falconer: I wish the gentlemen in discussing recurrent appendicitis would tell us what percentage is followed by or eventually ends in suppuration.

Dr. J. G. Carpenter: Dr. Cartledge will answer that question in closing the discussion.

Dr. F. C. Wilson, Louisville: From the standpoint of the physician I desire to make one point as bearing upon the value of the statistics that we heard read just now, the large percentage of recoveries without operation. It seems to me the value of those statistics can only be estimated when we take into consideration the future history of all of the cases. I am fully satisfied in my own mind that if we could possibly follow out each one of those cases we would follow them to their death within a few years. I know from my own limited experience that appendicitis does recur within six months or a year, or it may be many years, and it is finally fatal. It is not right to estimate the first attack as a part of a statistical table and put it down as a cure without operation, when that same case followed out may be the direct result of a former attack. It is the recurrent attacks that terminate fatally unless operated on. I believe in giving every surgeon his due, and it is not right to burden our literature with statistics bearing on the medical side of the question which are not reliable and not just. I can recall in my own experience half a dozen or possibly ten cases wherein the patients have had attacks of appendicitis and have recovered. I am watching them, because I expect at some time to see a recurrence, and when the disease does recur I am disinclined to wait. After the diagnosis is made, I believe in early operation. I believe the lives of many person that are now lost could be saved by early operative interference. The earlier the diagnosis is made, especially if it is a recurrent case, and the sooner the operation is done the better it will be for the patient.

Dr. F. J. Yager, Campbellsburg: I indorse what the previous speakers have said, and favor early operation in all cases in which a diagnosis of appendicitis is made. I believe that many patients lose their lives by delay.

Dr. Henry T. Norment: As to the cause of appendicitis and the prevention of recurrent attacks I would say a word. One cause, not spoken of in the discussion so far, is deficient circulation in the region of the appendix. In all the cases I have seen there has been some impaction, perhaps not very great, of fecal matter in the lower bowel, in the colon and cecum. One patient had a stricture of the sigmoid flexure. Impaction of fecal matter will affect the mucous coat of the bowel. By this impaction of feces the micro-organisms are increased and form a hotbed for the development of catarrhal and suppurative appendicitis. I have never heard appendicitis attributed to this cause, but I think the circulation being modified or cut off by the impaction of fecal matter in the lower bowel may be a factor in the production of appendicitis. I think it has a great tendency to produce the first attack, and by removing this cause or causes, either by cathartics or antiseptics introduced by means of siphon tubes into the lower bowel and washing it out, we get rid of perhaps the most important factor in

the etiology of appendicitis. By resorting to that treatment we prevent recurrent attacks. In my opinion many cases of appendicitis which we attribute to traumatism can more justly be ascribed to fecal impaction and a distended condition of the appendix by the engorgement which is produced there.

Dr. Samuel E. Woody, Louisville: When the general practitioner is confronted with a disease so obscure as appendicitis, to wait or not to wait is the question. Will Dr. Vance tell me what is the percentage of mortality due to the operation on fairly healthy subjects for appendicitis?

Dr. Vance: I think it is practically *nil* in competent hands.

Dr. Woody: Do you say one per cent?

Dr. Vance: I should say about that, or possibly a little more.

Dr. Woody: I would like to know now what is the percentage of fatal cases that may be charged to the waiting. In my experience with appendicitis as a general practitioner, I find the mortality from waiting is about ten or perhaps twenty per cent. We wait a great many times when we ought not to. Shall we wait in these cases? I think not. As soon as the diagnosis is made, or as soon as we are able to suspect the existence of appendicitis, I believe in calling in the surgeon.

Dr. L. S. McMurtry, Louisville: I want to call attention to one point brought out by my friend Dr. Schoolfield, and upon which I think Dr. Falconer predicates his inquiry. Dr. Schoolfield says that the time to operate in these cases is when suppuration has occurred. Dr. Falconer makes the inquiry, what per cent of these cases suppurate? If they could be arranged upon the basis predicated by Dr. Schoolfield it would solve the problem of operability. That will not do at all. We can have a sloughing gangrenous appendix without suppuration, just as we would have gangrene in a strangulated hernia. When suppuration occurs it is too late to operate. You are operating upon a moribund patient when you demonstrate that you have suppuration.

The position enunciated by Dr. Wilson here this morning is exactly that enunciated by Dr. J. M. Dacosta in a discussion before the College of Physicians and Surgeons of Philadelphia. He says, whenever you have the least doubt as to operating, always operate. Dr. Dacosta is the first advocate I have known to come squarely up to that point. It is where we all will come when we are more familiar with this subject. As our experience enlarges and we become more and more familiar with appendicitis, but one fact is rapidly being demonstrated, although it is a difficult one to thoroughly accept by the entire profession, and it is this: In competent hands the risk of opening the abdomen amounts practically to nothing. I say it deliberately, that in skilled hands the risk of making an exploratory incision in the right semi-lunar line is practically *nil*. Whenever the danger of waiting is greater than the danger of an operation, always operate. So says Dacosta and so says Wilson.

As illustrative of the treacherous nature of this disease, I will cite a case. I saw a patient in the center of the State with appendicitis. He had

a pulse of 70 or 80, a temperature practically normal. He was doing exceedingly well; we were chatting by his bedside, and shortly after we left, the operation being postponed. In six hours thereafter his appendix was perforated.

Dr. Larrabee suggested the use of opium, an agent that has been the means of losing more lives in this disease than any other one thing you can mention. If you have a case of suspected appendicitis and the life of the patient depends upon a judicious decision of the question of operative interference, by administering opium you have taken away your guide. The disease is masked. If you give a saline purgative you relieve the patient's pain quicker, and if you need to do an operation you have taken a preliminary step to get him ready for the operation.

Dr. A. M. Cartledge, Louisville: I desire to call attention to one or two points in closing. First, with reference to the original classification of appendicitis. I have for two years been advocating the discontinuance of the classification which embraces catarrhal appendicitis. I do not claim that a catarrhal state may not precede the suppurative stage of inflammation in the mucous membrane. As a matter of fact it always does, but I can not agree with Dr. Frank and some of the gentlemen who embrace this classification, as it is misleading. It leads to just such conclusions as Dr. Schoolfield calls attention to, that we must wait for suppuration before operating. I claim that it is exceedingly difficult sometimes to recognize suppurative appendicitis, and I do not think there is that man who can make a diagnosis of a catarrhal secretion in the appendix. That it may be the preliminary stage, or that it leads to many cases of suppurative inflammation in the appendix I am ready to believe. It is misleading, however, in that it is a catarrhal appendicitis that gets well. When once suppuration has taken place there is a lesion present, and if that lesion terminates in resolution we have stricture of an organ whose lumen is small, and this becomes a subsequent cause of disease.

As to foreign bodies as etiological factors, I am sure that the pendulum has swung too far in the opposite direction. Twenty years ago we thought all cases of appendicitis were due to cherry stones, seeds, etc. Because we have been operating and found no cherry stones, it will not do for us to think that they have no significance. This is a mistake. They have an etiological bearing in the production of the disease. I believe foreign bodies by causing tissue lesions about and in the appendix are the starting point of the disease. They pass away, and we do not always find them here. Fecal concretions are often found. I believe these foreign bodies by bruising the mucosa act as a predisposing cause by forming a point of least resistance, which becomes invaded by the bacillus coli commune.

As to the removal of the appendix, I would call attention to Dr. Grant's paper. In those cases of far-advanced appendicitis, with large abscess, a weak pulse, etc., the best surgery in my opinion is to open the abscess and drain it. If the patient has strength enough left to justify more prolonged surgical interference, never leave the appendix. It is certainly bad surgery

if it can be removed, because if an appendix that has been diseased is left, it is likely to cause subsequent trouble, provided the abscess heals at all. It will remain open for five or six months if you do not remove the appendix. It is therefore commendable surgery to do this, and my observation is that you generally have to go back and remove the appendix subsequently if you do not do so at the preliminary operation.

With reference to obscurity in diagnosis, I want to go on record as saying that the diagnosis of appendicitis is involved in less obscurity than any disease with which I am familiar. I claim this, that where a patient is seized with constant pain in the right iliac fossa, vomits, has tenderness and muscular rigidity, and within three hours thereafter has circumscribed pain, ninety-eight times out of a hundred you may safely conclude that you have to deal with a case of appendicitis. The trouble lies in waiting for the development of abscess and the formation of pus, and as a consequence a great many cases have advanced to the suppurative stage before they reach the surgeon.

In regard to Dr. Falconer's question as to the percentage of relapsing cases that terminate in suppuration, I will say that such cases have already advanced to the suppurative stage and may terminate in peritoneal abscess and death, or they may open externally. Dr. Long, of Virginia, in some remarks before a recent meeting of the Southern Surgical and Gynecological Association, stated that he had treated a patient in the twenty-second attack of appendicitis, and finally the man died with perforation and general peritonitis.

Dr. A. M. Vance, Louisville: I have very little to say, as the gentlemen who have preceded me have so thoroughly covered the ground. There is one point, however, I would like to mention, and it is this: Great care is necessary on the part of the surgeon in the radical treatment of these cases of appendicitis, and particularly in those cases where the wound has to be packed. It is almost impossible to avoid more or less weakening of the abdominal wall, hence the greatest care is necessary on his part to insure accurate coaptation of all the layers to the abdominal wall. One of the ugliest things we have to deal with after operation is the occurrence of ventral hernia. I believe if we introduce provisional sutures and close them up gradually afterward, just as drainage will allow, we will guard against the occurrence of ventral hernia.

I agree with Dr. Cartledge in the statement that we should take out the appendix whenever possible. I would like to say also that the medical statistics given here to-day count for nothing.

Dr. H. Horace Grant, Louisville: Dr. Larrabee, in the beginning of this discussion, referred to my statement of physiological inflammation as a novelty to him. If he will consider the advanced pathological studies that have been presented, he will find that a physiological inflammation is that variety of inflammation which terminates in recovery without the development of suppuration. It is that process of inflammation which completes all repair, and it is a form of inflammation that takes place in the irritations which

Dr. Cartledge described in his remarks as catarrhal inflammation of the parts in which the return to the normal condition is not accompanied by any septic infection. I think it is a common form of irritation about the appendix.

I have nothing particularly to say about the paper of Dr. Cartledge, except that he has almost entirely represented my own views. I have no criticism to offer upon his remarks on catarrhal appendicitis. The views enunciated in my paper are not exclusively those of my own, but those of the majority of surgeons that I find represented at the present time in current medical literature. I feel sure, however, that a great majority of those who think of this subject will remember that the danger of general peritonitis is exceedingly great when any septic material enters the cavity. If we do not break up the adhesions after making our incision, and pack the cavity with iodoform gauze, which establishes free drainage, and the appendix (which is the original cause of the entire trouble) is allowed to slough away with the other products of inflammation, it seems to me the case is infinitely safer than if the operation is completed. You can open the abdominal cavity when septic infection is present, but no one can deny that the greatest danger is present always in the admission of any germ to that cavity, and no agency employed by any human being can protect it. The surgeon finds a large abscess and evacuates it by sticking his fingers around and about it. This danger is avoided by not breaking up the adhesions put there by nature. It is maintained by many operators, whose views are given in our current medical literature at the present time, that if infection does occur after the primary operation, a secondary operation can be done at any time without aggravating the existing condition. It is infinitely better to operate at the earliest possible moment in these cases after the diagnosis is made than to wait, as has been suggested by gentlemen who have discussed this phase of the subject; but if you operate and find the abscess cavity shut off from the peritoneum, it is better not to break up the adhesions, but to open the abscess, pack it with gauze, allow the *débris* to pass away, and close the wound. If, after ten days or two weeks, further trouble should occur, a secondary operation can be performed.

In speaking of bichloride gauze I said nothing about its use in the abdominal cavity. It should be outside the cavity, and I am surprised to think that my friends, who know so well my views in regard to this subject, thought I would use a germicide of this character in the abdominal cavity at all.

With respect to mercurial solutions in septic abscesses, I am obliged to differ with some of the gentlemen. It is my firm belief that in all septic processes the septic action is greatly interfered with and suppuration is prevented in very many instances by the use of a strong solution of mercury. Although from a theoretical standpoint it can be readily understood that the solution will not prevent suppuration, still, beyond all question, suppuration is greatly diminished by it.

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IS DIPHTHERIA A PREVENTABLE DISEASE?

There is no disease more dreaded by the people or treated by the profession with more anxiety as to the issue than diphtheria. That it is contagious, infectious, and inoculable has long been known, and its microbial character has been justly suspected; but the medium through which its specific bacillus or coccus was propagated and by which it was carried to persons who had positively had no personal contact with any case of the disease has till recently remained a mystery.

The microbial nature of diphtheria has been established beyond doubt by recent researches, and the Klebs-Loeffler bacillus (with one entity only to make its recognition difficult, the pseudo-diphtheria bacillus) takes its place among the scientific verities of the world.

The medium of its culture and the *modus medendi* of its transmission have, barring personal contact, been till recently largely a matter of conjecture. That diphtheria was sometimes introduced into households by pet animals was known, and it was a reasonable hypothesis that it was sometimes carried by food, milk, butter, etc.; but nothing definite was or could be known until the bacteriologist was able to say what was its microbe, and to demonstrate its presence in the suspected *fabulæ*. The New York Board of Health, to whom we are so much indebted for keeping cholera out of the continent, have taken

hold of this question in earnest, and availing themselves of the light recently thrown by science upon this hitherto dark subject are likely to pioneer the way for making diphtheria a preventable disease.

The following from the New York correspondent of the Boston Medical and Surgical Journal seems to "hit the nail on the head":

DIPHTHERIA BACILLI IN CHEESE.—The discovery of diphtheria bacilli in a lot of cheese (the first instance of the kind yet recorded, as far as known,) lately sent to the city from a dairy at Afton, N. Y., has attracted unusual attention in the medical profession. It seems that in the early part of July there were a number of cases of diphtheria in the town of Afton, and among those attacked by the disease was the child of the proprietor of the dairy mentioned, and one of the employes of the cheese factory belonging to it. In the latter instance the affection was of a very malignant character, and the patient died. Under these circumstances the factory was closed by the local Board of Health, and instructions asked from the State Board of Health. Dr. F. C. Curtis, of the State Board of Health, then came to Afton, and, after investigating the condition of affairs, gave permission to ship the June cheese from the dairy, but ordered the July cheese held for further examination. He then requested that samples of the latter should be sent to Prof. J. H. Stoller, of Union College, Schenectady, for bacteriological tests, and instructed the Afton Board of Health to allow the cheese to be shipped on July 30th, if not advised to the contrary. On July 30th, accordingly, no word having been received from Dr. Curtis, the cheese was shipped to a firm of commission merchants in New York City. The next day, July 31st, a letter came from Dr. Curtis stating that diphtheria bacilli had been found in the samples examined by Professor Stoller, and the Board of Health then telegraphed the New York Board to seize the cheese sent on the previous day. This was accordingly done, and the tests which have since been made by Mr. A. L. Beebe, Acting Chief of the Bacteriological Bureau of the City Health Department, have amply confirmed those of Professor Stoller, and demonstrated beyond question the presence of the Klebs-Loeffler bacillus in the cheese. Guinea-pigs have also been inoculated with cultures derived from the cheese, but the results of the latter investigations have not yet been announced.

Having devised means for sealing up one important fountain of infection the board has done a great thing in making easy and certain the diagnosis of diphtheria in doubtful or undeveloped cases.

Apropos of this work the editor of the Philadelphia Medical News says:

The example of the Health Board of New York City in providing for bacteriologic examination in all suspicious cases were well followed by all large cities. Sterilized tubes containing cotton swabs can be obtained by

any practicing physician from any of the numerous depots distributed over the city. With this material blood-serum tubes are inoculated, and in twenty-four hours a positive conclusion can be reached as to the presence or absence of the Klebs-Loeffler bacillus. Of the first 2,000 cases examined in this way by the New York Health Board 1,442 were instances of true diphtheria, while 433 were examples of pseudo-diphtheria.

These figures represented the amount of good to be derived from such a plan of systematic examination. It is perhaps no exaggeration to say that far more harm comes from the spread of diphtheria through mild cases, either not recognized or not reported and not isolated, than from the very malignant cases, for of these latter there is a popular fear, and they are summarily dealt with.

The editor calls attention to another factor in the spread of diphtheria, as follows:

Yet another point demands attention, viz., the time, after all membrane disappears, at which isolation may cease. In the light of recent investigation there is perhaps much harm done in this direction, for the bacillus diphtheriæ has been found in the pharynx and nasal cavity in cases of diphtheria a much longer time after the membrane has disappeared than isolation is usually enforced. In a series of cases examination would perhaps show that the Klebs-Loeffler bacilli are present in the naso-pharynx on an average from ten to fifteen days after the membrane has disappeared, but it must be remembered that in individual cases they may persist for five weeks, and in a case mentioned by Williams they were present eight weeks after the disease had come to an end. The bacilli found after the disappearance of the membrane are not the pseudo-bacilli, but possess active virulence, as has been shown by the inoculation of guinea-pigs. The length of time that these bacilli persist after an attack of diphtheria seems to bear no relation to the severity of the disease, but it does seem to be longer in cases in which there is some chronic disturbance in the naso-pharynx, while it is shorter in cases in which antiseptic sprays are long employed.

Isolation is certainly very often not continued long enough in private practice, while it has been found by Tobieson that of a series of forty-six cases discharged from a hospital as cured, culture showed the presence of the Klebs-Loeffler bacillus in twenty-four.

The rule adopted by the New York Health Board could be followed with advantage by other boards, that is, that no case can be considered free from the danger of spreading the contagion until culture has demonstrated the absence of the Klebs-Loeffler bacilli.

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Notes and Queries.

THE BACTERIOLOGY OF INFLUENZA.—Pielicke, of Renver's clinic (*Berl. klin. Woch.*, June 4, 1894), observes that the influenza bacillus grows only on nutrient media containing blood (serum), and not on glycerine agar alone. He records his investigations in 35 cases of influenza. In 15 influenza bacilli were found in the sputum, and in 5 of them influenza pneumonia was present. In one case the diagnosis could alone be made by an examination of the sputum. In only 5 out of the 15 cases could cultures be obtained. The bacilli then grew exactly as Pfeiffer has described, but the size was greater than in the case of the sputum. In one case of atypical pneumonia influenza bacilli were found along with the strepto- and pneumococcus. Cultures revealed a bacillus morphologically the same as Pfeiffer's pseudo-bacillus, but in aspect they appeared exactly like cultures of the true bacillus. In three weeks, however, the bacilli were considerably smaller in size, corresponding then to the true influenza bacillus. The author thus concludes that these two forms of bacillus are identical; the remaining 10, giving negative results on cultivation, were not recent cases. In one severe and genuine case of influenza the blood from the median vein also gave negative results. In the 20 cases where no bacilli were found, examination of the sputum yielded varying results; the diplococcus was found six times, the streptococcus twice. During the influenza epidemic 35 cases of pneumonia came under treatment, and in 11 of these the course was atypical. In typical cases Fränkel's pneumococcus was found; in the atypical cases mostly the streptococcus, but twice the staphylococcus. In one case the influenza bacillus and the streptococcus were found in the sputum, but the streptococcus alone grew in cultivation experiments. The case appears to show that a streptococcus infection can be engrafted upon influenza, and can cause a fatal pneumonia. Influenza provides a favorable soil for a severe strepto- or staphylococcus pneumonia.—*British Medical Journal*.

THE PATHOLOGY OF GRAVES' DISEASE.—Reinhold (*Münch. med. Woch.*, June 5, 1894,) relates the following case in a woman, aged thirty-five: The patient had previously been under treatment for hematemesis, and at that time no signs of Graves' disease were present. She was admitted with influenza, Pfeiffer's bacillus being found in the sputum. On the third day the temperature again rose, and there was painful swelling of the thyroid gland. She was discharged well a month afterward. Three months later she was readmitted with all the symptoms of Graves' disease. Here the connection between the strumitis and the latter disease must suggest itself. The same parts of the gland were enlarged as after the influenza. The inflammatory affection had given rise to a permanent alteration in the gland. The occurrence of Graves' disease after influenza has frequently been observed. Thus,

after an acute infective involvement of the thyroid gland, Graves' disease may appear. The author refers to the different views as regards the nature of this affection—whether it is due to a disease of the sympathetic or to a lesion in the medulla (Mendel), or whether it is a functional neurosis (Charcot). Moebius has advanced the view that it is a disease of the thyroid gland itself. He points out that occasionally some or all of the symptoms of Graves' disease may exist in ordinary goitre, and that Graves' disease is in many ways the opposite of myxedema, etc. It has been suggested that the former is due to hypertrophy, the latter to atrophy of the gland; myxedema has been known to follow upon Graves' disease. If the local theory is accepted, many clinical difficulties still remain. The specific treatment with thyroid gland has been without effect, and the opinions on the value of removal of the thyroid are divided. The author refers to another case in which Graves' disease followed upon scarlet fever. Here the gland was already enlarged, but no symptoms existed previously.—*Ibid.*

ERGOT FOR NIGHT-SWEATS IN PHTHISIS.—Goldendach (*Deut. med. Woch.*, June 28, 1894.) thinks that the night-sweats of consumptives are not simply due to fever, and that their real cause has not yet been fully explained. Many remedies have been recommended for them—quinine, acetate of lead, atropine, hyoscin, brandy, rubbing the body before sleep, or using the powder composed of starch, talc, and salicylic acid. Most of these Goldendach has tried and found wanting. On considering the part probably played by the vasomotor nerves he determined to try the effect of ergot against night-sweats, and in most cases found the result very satisfactory. He usually gives one or two five-grain doses of powdered ergot before bedtime, and the cases are few in which this remedy is found quite useless. He has, moreover, never seen any harm result. Lately he has modified his method by injecting the ergot subcutaneously in the form of a diluted extract.—*Ibid.*

THE TREATMENT OF TYPHOID FEVER WITH LACTOPHENIN.—Von Jaksch reports the treatment of eighteen cases of typhoid fever with lactophenin with surprisingly good results. Some of the cases had shown a continuous temperature of over 40° C. for several days with great dulling of the intellect and marked prostration, all of which had defied other lines of treatment. Other cases had severe renal complications, or hypostatic pneumonia. It is very essential to give the lactophenin in capsules, 0.5 to 1.0 at a dose. According to the antipyretic effect noted the drug may be repeated up to six grams a day. So far, he has not noted any ill effect whatever. In one case only was the first dose vomited, but subsequent doses were excellently well borne, and the effect on the patient was as favorable as in the other cases. Twice during the administration of the drug a somewhat arrhythmic pulse was noted for a while. The excellent effect of the drug was always a prompt reduction of the temperature, which under even very mod-

erate dosage remained for several hours, and the rise of temperature following was gradual and unaccompanied by chill. In some three hundred and sixty observations there was but one case in which the rise of temperature was accompanied by slight chilliness. The drug had a particularly quieting effect upon the typhoid patient. The delirium ceased and the intellect cleared to a marked degree, so that the patients all expressed a sense of subjective comfort. It is a crystalline powder with a slightly bitter, not unpleasant taste, and soluble in water. A similar favorable report of its use in some forty cases of various acute febrile disease, including numerous cases of typhoid, is made by Jaquet from the medical clinic at Basel.—*Boston Medical and Surgical Journal*.

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THERE has lately been called to our notice a new organic form of iron, which is prepared by Messrs. F. Stearns & Co., Detroit, Mich. It is put up in the form of pilloids (little flat pills, which are extremely friable, soluble, and easily administered). Each pilloid contains three grains of Hæmoferrum (Blood Iron), which is a natural proteid compound of iron, aseptically prepared from fresh bullock's blood, and contains all the iron of the blood. It is non-constipating, non-irritating, and non-styptic; of natural reaction, in short it is claimed to be Hæmoglobin, the active principle of the blood itself, in its best form, viz., Oxyhæmoglobin. Stearns & Co. come forward with a great many reports from prominent physicians regarding its value as a therapeutic agent, and offer to send all inquiring a free sample, and full literature on the subject, earnestly requesting the profession to give it a thorough trial.

WM. R. WARNER & CO., Philadelphia, received a silver medal at the late International Medical Congress at Rome—a compliment richly deserved by this well-known firm, who are pioneers in the manufacture of sugar-coated pills.

CELERINA in teaspoonful doses, two or three times a day, will be found a valuable remedy in night terrors.

THE
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"NEC TENUI PENNĀ."

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No. 5.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

TRAUMATIC PERITONITIS IN CHILDREN.*

BY HARRY J. COWAN, M. D.

Peritonitis may be the result of such widely different kinds and varying degrees of traumatism that it is necessary to more closely define the subject of this essay in order to be intelligible.

Wounds of the abdomen and the application to it of such violence as to rupture some of its contained viscera usually produce peritonitis, but in these cases the solution of continuity of the viscera, or the direct introduction of micro-organisms to the injured peritoneum, is of vastly more importance than the primary injury to the membrane itself. To peritonitis thus produced the following remarks do not apply.

Contusions of the abdomen, however, which do not injure any of its contained viscera, which are of so trivial a nature as not to leave their mark upon the skin, and to which no importance is attached at the time of their reception, may produce very serious peritoneal inflammation, and if the history of the injury is not obtained, one more case is added to the long list of acute idiopathic peritonitis.

In this connection Dr. G. Frank Lydston, in a paper which will again be referred to, notes three significant facts: that acute idiopathic peritonitis is much more common in children than in adults; that the abdominal cavity is relatively not so well protected in children; that in the abandon of their sports children receive more contusions than

*Read before the Kentucky State Medical Society, June 17, 1894. For discussion see page 186.

adults, and that the history of such traumatism is more difficult to obtain.

The etiology of acute peritonitis occurring in a previously healthy child is extremely simple, for if we can exclude perityphlitis, septic infection from vulvo-vaginitis and the various forms of mechanical obstruction, for all practical purposes we have to deal with the result of a trauma, and if the child is of sufficient age inquiry will elicit the fact.

In a very limited experience I have seen several such cases in both children and adults. The inflammation is usually sharply circumscribed to the region at which the injury was received, and under favorable circumstances shows no tendency to extend. The history of a contusion or concussion of the abdomen, followed in a few days by abdominal pain, an asymmetrical distension with obliteration of the subensiform depression, tenderness all over the abdomen, but most marked at the seat of injury, a febrile movement, infrequently vomiting, and always an almost complete obstruction which resists for many hours the combined attacks of vigorous cathartics and high enemas, are the prominent features of this condition. It has seemed to me that pain in this form of peritonitis was more constant and agonizing than in other forms, and also that vomiting was the least constant and marked phenomenon, its absence being of value in the differential diagnosis from mechanical obstruction.

In considering the treatment of peritonitis following contusion of the abdomen the cases naturally group themselves into three classes:

1. The inflammation remains circumscribed and suppuration does not occur.

2. Micro-organisms gain access to the inflamed area, producing according to their character and the resisting power of the individual attacked a circumscribed abscess or a general suppurative peritonitis.

3. The inflammatory process, although pursuing a practically aseptic course, gradually spreads until it involves a large portion of the peritoneal surface.

For cases of the first class, absolute rest, the withdrawal of all food, vigorous catharsis, combined with high enemas, persisted in until an artificial diarrhea has been produced, and then sufficient opium to relieve pain, and if distension persists the constant wearing of the rectal-tube is all that is required. It is not necessary for me to dwell upon the importance of incision and drainage when there is evidence of suppuration. The determination of the time when reliance upon nature

and catharsis shall cease and operative interference be undertaken, in the third condition mentioned above, gives rise to considerable anxiety.

Although there is no evidence of suppuration the inflammatory process extends from day to day, the pain continues unabated, the abdomen gradually becomes more and more tense, the bowels remain locked, or if catharsis be produced it does not relieve either the pain or distension, the vital powers are being taxed by the constant pain, the great distension, the interference with alimentation. The question is, when shall we interfere?

From an Address in Surgery (Journal of the American Medical Association, June 25, 1887), by Dr. H. H. Mudd, I quote: "Laparotomy is not demanded in the presence of peritonitis, except where septic fluid is abundant, a purulent collection is evident, a general loss of vital power threatens death, or where there is grave functional disturbance."

The latter two exceptions apply well to the practically sterile peritonitis now under consideration. We should be governed more by the manner in which the organism is bearing the strain than by the abdominal symptoms. Laparotomy should be done when "a general loss of vital power threatens death, or where there is grave functional disturbance."

Such a case came under my care March 10, 1890, the history of which I copy from short notes taken at the time: The patient was eight years of age, a fairly well nourished boy, but showed the lymphatic diathesis. He was of constipated habit; not considered very strong; had been in usual health until the morning of the day upon which I first saw him, since which time he had been vomiting and complaining of great abdominal pain. The bowels had not been moved for three days; there was history of a blow upon the abdomen two days previously, which had caused emesis at the time, but from which he soon recovered; face indicated considerable pain; tongue clean; pulse 90; temperature 101° .

He lay in bed upon the back; legs drawn up; abdomen tender, distended asymmetrically; most prominent above and to the left of the umbilicus, where the blow had been received; subensiform depression obliterated. Gave an enema which brought away a large fecal evacuation; ordered hot fomentations.

March 11. Vomiting had ceased; pain and distension not relieved; ordered calomel, one half grain every half hour, and hot fomentations. By evening he had been purged slightly; no relief of pain or disten-

sion; high enema given but not returned; ordered magnesia sulphate, teaspoonful every half hour until purged.

March 12. Has been freely purged but with no relief of either pain or distension; has not slept since the beginning of his illness; distension increasing; ordered opium sufficient to relieve pain, and hot fomentations.

March 13. Pain relieved by opium; distension increasing.

From this time until the 27th of March the distension gradually increased; more and more opium was required to relieve pain; very little nourishment was retained; temperature very irregular, never over 102° F., most of the time between 99° F. and 101° F.

On the 26th his condition was as follows: Face pinched; he required $\frac{1}{4}$ grain of morphia hypodermically every three hours, and even this did not entirely control the pain; abdomen enormously distended, but slightly asymmetrical, the most prominent point being at the seat of injury; temperature 100° F.; pulse 130; bowels had not been moved for four days, although he had been given purgatives and high enemas, very little nourishment being retained.

In consultation with my father, Dr. George Cowan, we decided to open the abdomen, relieve the distension, flush and drain. Accordingly on March 27, 1890, Dr. A. W. Johnston administering the anesthetic, I made a three-inch incision into the abdomen. A large quantity of small intestine immediately forced itself out of the wound, and three successive loops were incised, emptied, sutured, and returned before the distension was sufficiently relieved to explore the abdomen. The condition found was one of very wide-spread peritonitis; soft adhesions were found here and there wherever the hand was passed; the pelvis contained a small quantity of dark-red fluid; there was no evidence of disease in the region of the appendix. The abdomen was flushed, drained, and closed with the distension very materially relieved; pain did not return on recovery from the anesthetic; he was purged freely on the second day, when the abdomen became flat.

During his convalescence considerable distension recurred at intervals of a few days, but was always relieved by a purge. He is now well.

Dr. G. Frank Lydston, in a paper on this subject published in the *Journal of the American Medical Association*, June, 1890, reports a case of traumatic peritonitis occurring in a girl seven years old, produced by a fall against the corner of a table. Peritonitis was developed four days after the receipt of the injury. On the third day of the disease

he made a small opening in the abdomen, punctured the intestines at numerous points with an exploring needle, washed, drained, and closed. The child made an uninterrupted recovery. In closing his paper Dr. Lydston makes, among others, the following conclusions:

"1. I do not believe in acute primary idiopathic peritonitis.

"2. The majority of cases of so-called idiopathic peritonitis in children will be found upon inquiry to be traumatic.

"3. Slight injuries of the abdominal wall are relatively more dangerous in children than in adults.

"4. Surgical interference is indicated in all cases of severe general peritonitis and cases of localized suppurative peritonitis."

In all of these conclusions I concur.

DANVILLE, KY.

SOME SYPHILITIC DISEASES OF THE EYE.*

BY DUDLEY S. REYNOLDS, A. M., M. D.

*Professor of Ophthalmology, Otology, and Medical Jurisprudence in the Hospital College of Medicine;
Surgeon to the Eye and Ear Department of the Louisville City Hospital.*

The syphilitic diseases of the eye should be divided into classes, and for the sake of convenience I should prefer to consider them as of the acquired and inherited. Then I should divide the inherited types: First, those in whom the disease has been so recently acquired by the mother as that the secondary roseola appears some time after the birth or about that time; second, those in whom the syphilitic evolution has been apparently completed in the mother before pregnancy. Just how to reach that class of the third and fourth generation of syphilitic patients it is difficult to formulate rules, and I prefer making my third division embrace the victims of remote inheritance. If the syphilized mother has apparently recovered and gives birth to a child with certain structural defects, such, for example, as those imperfect developments of the lymphatic system described by Dr. Formad in his report on the anatomical peculiarities of struma, the muscular deficiencies, and the thin and imperfect development of the arterial walls, then how shall we expect to find marks of inheritance in those of the third generation of syphilitic parents?

It is distinctly and emphatically stated by nearly every recent writer on syphilis that none of the normal secretions of the body contain the

*Read at the June Meeting of the Kentucky State Medical Society, 1894. For discussion see page 187.

virus. It is manifestly clear, therefore, the spermatic fluid can never be accompanied by the virus of syphilis excepting where abrasions, ulcerations, or gummatous deposits exist, either in some part of the testicle or the walls of the excretory ducts. Since the common period of incubation of the syphilitic virus has been fixed at from twelve to forty days—shortest ten, longest forty-six days (Keyes)—it is clear that abortion must necessarily follow in cases where the virus of syphilis reaches the ovum before placental attachment has been established, and every one knows that syphilized women can not bear children conceived during the periods of activity of the syphilitic virus. It is an equally common observation that men in the most active periods of syphilitic infection actually beget perfectly normal, sound, and vigorous children. It is already an exploded superstition that the father may communicate syphilis to his offspring without first infecting the mother. I have many times seen children born of syphilized women about the time of the appearance of the secondary eruption, and more frequently before that period.

Every obstetrician will testify that a pregnant woman seldom goes two months with a secondary eruption of syphilis without discharging the contents of the uterus. Who has not observed the miscarriages and abortions of syphilitic women?

Mr. Jonathan Hutchinson, in his great Clinical Memoir on Certain Diseases of the Eye and Ear, consequent on inherited syphilis, publishes at page 25 the following Aphorisms Respecting Iritis in Infants:

1. The subjects of infantile iritis are much more frequently of the female than of the male sex.

2. The age of five months is the period of life at or about which syphilitic infants are most liable to suffer from iritis.

3. Syphilitic iritis in infants is often symmetrical, but quite as frequently not so.

4. Iritis, as it occurs in infants, is seldom complicated, and is attended by but few of the more severe symptoms which characterize the disease in an adult.

5. Notwithstanding the ill-characterized phenomena of acute inflammation, the effusion of lymph is usually very free and the danger of occlusion of the pupil great.

6. Mercurial treatment is most signally efficacious in curing the disease, and, if recent, in procuring the complete absorption of the effused lymph.

7. Mercurial treatment previously adopted does not prevent the occurrence of this form of iritis.

8. The subjects of infantile iritis, though often puny and cachectic, are also often apparently in good condition.

9. Infants suffering from iritis almost always show one or other of the well-recognized symptoms of hereditary taint.

10. Most of those who suffer from syphilitic iritis are infants born within a short period of the date of the primary disease in their parents.

In the foot-notes Mr. Hutchinson says he has known the second eye attacked in a patient already under the influence of mercury for the treatment of the first eye affected. He has in a number of instances observed acute iritis occurring during the period of actual pyalism. I have seen a number of such cases myself. It is a well-established fact the poorly nourished subjects of inherited syphilis are not those most likely to suffer local lesions in the eye. This class of subjects seem to suffer in the digestive and assimilating organs, and have those artistic decorations of the skin which the dermatologist delights to exhibit as brilliant illustrations of diagnostic skill.

Syphilitic iritis notoriously occurs most frequently in the periods of the advancing secondary eruption, while inflammations of the optic nerve and retina are vastly more common in the later stages of the disease. Inflammations of the cornea are almost as common as any other localized syphilitic disease of the eye.

Keratitis is, however, a more remote manifestation of syphilitic infection than iritis, and, although interstitial keratitis occurs in the subjects of acquired syphilis, it is by no means commonly due to syphilitic infection in this class of subjects; *per contra*, interstitial keratitis of syphilitic origin is accompanied by disturbances of the corneal epithelium, which presents the appearance of ground glass, and this is never seen in subjects of acquired syphilis. Now I feel like asking the question, Is it ever seen in the subjects of inherited syphilis where the child was born before or about the period of the secondary evolution of syphilization? It seems to me this distinction must be made, that mucous patches in the conjunctiva and on the surface of the cornea are often seen as early manifestations of the tertiary period of syphilization, and especially in those who have been born with the disease, yet in young adults in the same period of syphilization, where the disease was acquired, these mucous patches are occasionally seen. I have known a number of instances where great injury resulted to the eye from local

treatment for the relief of clearly defined and unmistakable mucous patches in persons who at the time had no other manifestation of syphilitic infection excepting a small patch or two in the mouth. It is, therefore, of great importance that a diagnosis should be made at the outset in order that the proper constitutional treatment may be commenced at once, and that no local interference with the mucous patches in the eye shall be attempted.

Gummatous formations in the cornea are not infrequently observed at the termination of the vessels in the limbus of the conjunctiva. Gummatous abrasions are vastly more frequent in advanced syphilis than in the earlier periods of infection; these gummatous formations at the periphery of the cornea are, therefore, observed more frequently in children of five or six years of age than in younger persons. Interstitial keratitis seldom occurs as early as the fourth year, although Mr. Hutchinson reports several cases occurring at the age of one year. It is seldom delayed beyond the twelfth year, yet it is occasionally seen, as in one of Mr. Hutchinson's cases, as late as the twenty-sixth year of age in a person with characteristic teeth.

Many of the best writers believe inherited syphilis tends to run a milder course, and offers less protection against subsequent liability to syphilitic infection. Latent syphilis may be aroused into activity after long periods of time by influences which diminish the *vis conservatrix* of the general system; hence, it is not rare to observe syphilitic affections in people of advanced age who have not been suspected even of syphilitic contamination since early manhood. Mr. Hutchinson believes the degree of severity of the inherited taint is proportioned to the short period which elapsed after the primary infection of the mother. The progeny of the subjects of inherited syphilis are often found with optic neuritis, neuro-retinitis, and choroiditis early in life.

It is but natural the subjects of inherited syphilis should exhibit faulty bone formations and faulty development of the teeth; indeed, it would appear from extended observation that the cornea and teeth in particular are especially sensitive to the action of syphilis in those who inherit the disease. I have seen keratitis which presented the appearance of suppuration, and in one instance I saw paracentesis of the cornea practiced for the evacuation of what appeared to be pus in the anterior chamber, but which turned out to be a mass of pale gumma adhering both to the cornea and iris. A course of iodide of potassium wrought the miracle of complete recovery. Under its influence the

gumma melted completely away, and the eye not only recovered so far as appearances go, but there was no appreciable impairment of the sight. Many eyes are lost from syphilitic inflammation of the iris extending into the ciliary body which might have been saved by an early and vigorous constitutional treatment but for the fact of the misapprehension on the part of the medical attendant concerning the origin of the disease.

Prof. Noyes, of New York, is the author of the chapter on Syphilitic Diseases of the Eye in the celebrated work of Prof. Keyes; I therefore find it difficult to obtain any valuable information concerning the character and frequency of local lesions in the eye from the observations of this great teacher.

The late Prof. Bumstead, whose Clinical Treatise on Venereal Diseases won him so much fame, was himself an experienced ophthalmic surgeon. He directs attention to the fact that the absence of severe pain and photophobia in syphilitic iritis offers valuable evidence in support of the suspicion of its syphilitic origin. The history of the case is seldom of value, and there are many persons in whom no cutaneous eruption or other sign of syphilitic disease may be discovered, and yet tubercular elevations of a brownish pink tint, sometimes light gray and sometimes cream colored, appear in the substance of the iris or upon its surface, the eye being but slightly sensitive to light and often not at all painfully affected. A few doses of iodide of potassium serves not only to dissipate the gumma in the iris, but to bring out the characteristic cutaneous eruption. The stimulating effect of the iodide of potassium on the skin of syphilitic subjects has been often observed, and may often be employed to clear up the obscure symptoms and make clear the diagnosis.

Mr. Swanzy, of Dublin, and Mr. Hutchinson, of London, have both reported cases of retinitis pigmentosa in the subjects of inherited syphilis. Prof. McNamara concludes this to be a peculiar form of pigmentary degeneration of the retina in which the spots, although beginning in the periphery and accompanied by commencing choroidal changes, do not follow the vessels of the retina. Prof. Gradle says in an article in the supplement of the Reference Hand-book of Medicine, page 300, that "accompanying late syphilis, the retina is involved, beginning in the periphery and extending gradually toward the center of the field, resembling retinitis pigmentosa in appearance, yet the etiological data we possess regarding the origin of retinitis pigmentosa as consanguinity

of parents in one fourth to one third of the cases." This, of course, in nowise impairs the laws of hereditary transmission, and it is by no means established that families having retinitis pigmentosa, although intermarrying with each other, were not themselves or their parents the subjects of syphilis.

Sydenham, about 1670, in his celebrated "History and Cure of the French Pox," says the disease first came to Europe from the West Indies in the year 1493, and that it was already at the time of his writing languishing daily and the phenomena growing milder. He considers that whereas it was very malignant when first introduced into Europe, two hundred years dissipated its malignancy so completely that reason and experience dictated the disease might be cured by any sort of purge given often and for a long while. In another place he says mercurial salivation will generally do the business of cure, and on page 257 he says: "I think no instances can be produced where this disease was eradicated in any other way than by salivation with mercury, whatever some learned and unlearned men say of the cure of it by other means."

The incredulous student, reading the history of the treatment of syphilis through the publications of the great teachers in medicine, from Sydenham to Keyes, naturally wonders why, if mercury or any thing else suffices for the cure, we have any such disease as hereditary syphilis.

Mr. Jonathan Hutchinson considers the distinction to be drawn in the character of the teeth and bone of those who inherited syphilis from the parents long subjected to mercurial treatment and those who inherited it from parents who acquired the disease but a short time before birth of the subject. Upon sound pathologic researches rational systems of therapeutics may alone be established.

Neither Mr. Gascoyne, who reported a large number of cases of iritis successfully treated by the local use of atropine alone, nor Prof. Henry W. Williams, who employed no mercury in the treatment of his sixty-four cases of iritis, have been any more successful in their exclusive methods of treatment than Sydenham with his mercurial ptyalism, and neither of them have now any imitators.

Materia medica has so far yielded no specific antidote to syphilis, the local phenomena of which yield to a great variety of medication in a very prompt and satisfactory manner. To say that mercury cures syphilis is just as absurd and untrue as to say that all manifestations of syphilis can be cured without mercury.

Inflammations of the iris without accompanying lymphatic obstructions not only require no mercurial treatment, but yield uniformly, in the painless cases, to the action of the iodides, while those cases accompanied by severe pain are promptly relieved by the alternating or occasional use of salicylates and iodides.

It is notoriously true that very emaciated subjects rarely have iritis, yet the ulcerative inflammations of the cornea and conjunctiva of syphilitic origin occur almost exclusively in emaciated subjects. And, paradoxical as it may seem, my own experience leads me to believe that syphilitic emaciation is seldom overcome without at least the occasional use of mercury.

I think a combination of mercury with sulphate of quinine in doses of $\frac{1}{12}$ or $\frac{1}{16}$ of a grain of quinine with $\frac{1}{80}$ grain of bichloride of mercury every three or four hours for a child under eight years of age, with a careful exclusion of all indigestible ferments, such as cooked fruits, syrups, confectionery, and pastry, with judicious bathing, outdoor exercise, and regular administration of nutriment in definite quantities, such, for example, as an ounce of beef tea, or two ounces of prepared beef peptonoids, or malted milk, with each dose of the medicine yields wonderful results in apparently hopeless cases.

Now, as to local treatment of syphilitic diseases of the eye two great principles must be constantly borne in mind. In all forms of iritis solution of the sulphate of atropine or the hydrobromate of homatropine should be instilled every two or three hours to thoroughly dilate and maintain constant dilatation of the pupil. This is absolutely essential to the ultimate recovery of the eye, no matter what constitutional agencies may be employed to dissipate the general infection upon which the local disease of the eye depends. In cases of abrasion or ulceration of the cornea or conjunctiva some sort of mild antiseptic should be frequently applied to prevent all local infection of the abraded surface, for it is well known that even syphilitic ulcers may afford a good ground for the colonization and growth of those micro-organisms which beget suppurative processes.

The best applications are an ointment of the yellow oxide of mercury carefully prepared or an ointment of boric acid. Great care is necessary in the preparation of the yellow oxide of mercury, as it is liable to contain caustic lime, potassium, sodium, or ammonium as foreign ingredients.

The officinal petrolatum is a better excipient for an ointment than vaseline, cosmoline, or any of the other preparations of petroleum.

If this is not at hand a combination of glycerine and starch, known as glycamil, should be used. Lanoline is sure to irritate the eye, and should never be employed in affections of this organ.

LOUISVILLE.

TREATMENT OF BURNS WITH ARISTOL; A CLINICAL NOTE.*

BY PROF. ANASTASIUS HAAS.

In recent times attention has been directed to the anesthetic action of aristol, and it has been especially shown that when applied to burns the remedy exerts a remarkably favorable influence in relieving the pains which attend these accidents.

Aside from this aristol occupies a high place as a cicatrisant, as has been demonstrated by a large number of observers, and also possesses powerful antiseptic properties. It is for these reasons that the remedy appears to be especially suitable, it may be predestined, for the treatment of burns.

It is noteworthy that under its use the duration of healing is remarkably short and that the pains are almost instantly relieved. In confirmation of this statement the following notes are presented:

R. Bufill, Barcelona, describes a case of burn of the arm in which he observed that a solution of aristol in oil, as well as a mixture with lanoline (10 per cent), produced a marked alleviation of the pains and accelerated the healing process.

Von Kliegl reports a number of cases of burns from the surgical clinic of Prof. v. Mosetig-Moorhof in Vienna, and states in conclusion "that of all other remedies employed in burns aristol in the form of 10-per-cent salve proved the most serviceable."

Whiteleath (New England Medical Monthly, May, 1893,) and Stern (Prescription, February, 1894,) extoll the value of aristol ointment in burns, especially on account of its analgesic properties. Stern has obtained equally satisfactory results from a 10-per-cent salve of aristol and vaseline in burns and scalds. In a case of burns of the forearm of the third degree healing took place in less than a month; in a case of

*Translated for the Morgagni, July, 1894.

scalds by hot water, in which almost the entire body was covered with blebs, in the course of two weeks.

Prof. Demme, of Berne, in his well-known "Therapeutic Contributions from Pediatric Practice," states that his treatment of burns is as follows: After evacuation of the contents of the blisters he applies cloths moistened with liniment of linseed oil and lime water; later he covers the affected part with a thick layer of iodoform or aristol gauze, over which is applied a layer of cotton and a bandage.

MacCoy (New England Medical Monthly, December, 1893,) reports a case of burns in a fireman whose legs as far as the sole of the feet were scalded by steam. The skin hung in shreds, and there was a profuse fetid suppuration. The wound showed no tendency to heal. After application of an aristol ointment, however, excellent results were obtained even at the end of twenty-four hours. Healing rapidly progressed, more rapidly than the author had ever observed. In a practice of twenty-eight years he has never witnessed such satisfactory results.

These favorable reports induced me to avail myself of aristol, especially as I had abundant opportunity to observe and treat numerous cases of accidents in chemical and similar factories.

In burns due to chemical agents, in which heat usually plays a part, we generally meet with the severe forms of the second and third degree. The symptoms of these burns are well known, and I will not exhaust the reader's patience by the narration of clinical histories, for the aim of this communication is simply to call the attention of practitioners to the advantages of aristol treatment in this class of cases.

In the treatment of burns the chief indication after the affected parts have been disinfected is to keep away all injurious agents from without by means of a mild non-irritant antiseptic, and thereby to produce rapid and painless cicatrization. These properties belong to aristol in a remarkable degree. In numerous cases I was able to demonstrate that the painfulness of the burned areas rapidly subsided and failed to return under the influence of aristol. Furthermore, aristol forms a protecting antiseptic cover of great uniformity, and finally, and this is of chief importance, we were able to confirm in cases of burns the fact observed in other conditions that this remedy exerts excellent effects in forming granulations and bringing about cicatrization. Therefore it fulfills all the requisites of a remedy for the treatment of burns, and is far preferable to iodoform, especially in cases of extensive burns, because it is entirely innocuous. Even large areas of the body can be covered

without risk with aristol, while in the case of iodoform, which was formerly awarded the first place in the treatment of burns, we were never assured against the danger of severe intoxication, especially in extensive burns.

The treatment of burns should therefore be as follows: First, the affected parts are disinfected thoroughly with 2 per cent solution of boric acid, and the vesicles are opened. In less extensive burns, in order to insure more complete disinfection, it will be more advantageous to employ a stronger disinfectant. The burned areas are then sufficiently covered with aristol gauze, over which is applied a layer of sterilized cotton gutta-percha paper and a bandage, the dressing being renewed when required. It is not advisable at first to dust the aristol powder directly upon the burned places, because this might impair the absorption of the wound secretions by the dressing. At a later period, when the secretion has diminished, the aristol may be insufflated in substance or applied in the form of a 10-per-cent ointment, which will produce a rapid cure.

I make use for this purpose of the following formula:

Aristol,	5.0-10.0;
Ol. oliv.,	20.0;
Sol. adde,)	
Vaselín,)	
Lanolin,)	40.0.

M. f. ungt. D. S. ointment for burns.

POISONING BY BENZINE.—Dr. Rosenthal, of Madgeburg, reports the case of a little girl, eighteen months of age, who had swallowed half an ounce of commercial benzine. She lost consciousness, the pulse became small and rapid, and the respiration very quick, with *râles* at times. Both on washing out the stomach and on administering an enema, shreds of bloody mucus came away. The urine contained both albumen and sugar. Although treatment was commenced ten minutes after the child had taken the dose, she remained in a sleepy condition for six hours, but the next day she was quite well. This poison being very quickly absorbed, most of the reported cases have ended fatally from paralysis of respiration. Gastro-enteritis appears also to be a result of this poison. Dr. Rosenthal likewise mentions that glove-cleaners sometimes intentionally produce the narcotic effects of benzine by inhaling it, and he saw one man who had thus become quite delirious; he had been, however, previously given to drink.—*London Lancet*.

Reports of Societies.

KENTUCKY STATE MEDICAL SOCIETY.

Thirty-ninth Annual Meeting of the Kentucky State Medical Society, held at Shelbyville, Kentucky, June 6, 7, and 8, 1894.

[CONTINUED FROM PAGE 162.]

Dr. Curran Pope, of Louisville, read a paper on Neuralgia. The author defined neuralgia as a "functional neurosis characterized by pain, varying in degree, localized in particular nerve trunks, and not accompanied by fever."

Neuralgias may be classified as follows:

1. Regional neuralgias: facial, intercostal, and visceral.
2. Symptomatic neuralgias: (*a*) Of a general condition, such as is found in rheumatism, anemia, scrofula, epilepsy, malaria, alcoholism, lead poisoning, and in patients who have been addicted to narcotics; (*b*) of a local condition, as in derangements of the liver, stomach, bladder, uterus, ovaries, etc.

This "does not permit of rigidly placing the disease under any of its heads, for a facial neuralgia may not only fall under the head of a regional neuralgia, but may have as a causative agent anemia, gastric disturbance, etc."

Among the causes of neuralgia heredity is given a prominent place, anemia, malnutrition, etc., being duly credited with producing the disease.

Under heredity the author took the ground that tuberculosis in the parent predisposes to neuralgia in the offspring; "children born of tuberculous parents frequently escape this terrible scourge, but fall victims to nervous disease, and especially neuralgia, with extreme readiness."

In diagnosis the author says that every mode of precision should be used. Dana says truly that neuralgia remains as long as its cause is not removed, and it behooves us to search.

In treatment two points must be kept in view: Relieve the pain and prevent its return.

Reflex sources must be found and removed. Hygiene, diet, and exercise must be employed. Correct habits of dissipation if they exist.

The author deprecates the use of sedatives and narcotics in this disease, and prefers to rely upon tonics, constructives, correctives, electricity, massage, and hydro-therapeutics.

DISCUSSION OF DR. POPE'S PAPER.

Dr. T. B. Greenley, Orel: There is one point in reference to the local treatment of neuralgia that I would like to add, and that is the use of dry cups. Wherever you can apply a dry cup over the local seat of pain, whether in rheumatalgia or neuralgia, you can do a good deal toward the relief of the patient's suffering. By continuing that three or four times a day, if the pain is persistent, you can overcome it quicker than by any other means. I have had better success in treating intercostal pain, or pain in the back, when I have resorted to this than with any thing else. I have got patients out of bed that could not possibly get out themselves by drawing thoroughly with a cup.

Dr. J. B. Marvin, Louisville: There is much in the paper to commend. I would criticise the opening sentence, if I understood it correctly, that neuralgia is "a functional neurosis." These functional troubles are the *bête noire* of the profession. Neuralgia or rheumatism (meaning thereby pain), hysteria, and malaria are the trinity by which we so frequently cloak our ignorance. Can a functional thing hurt? Can it cause an ache or a pain? We say that a hollow tooth will ache like the mischief. It is not the hollow tooth that aches at all.

The essayist made a mistake in designating neuralgias dependent upon a variety of causes, as anemia and certain toxic agents, syphilis, malaria, gout, reflex causes, and neuritis. We should reserve for the latter class those cases in which there is some demonstrable lesion in the nerve trunk or nerve center. The greater the effort to narrow down this class of cases of functional neurotic troubles, the better will be our progress.

Another criticism is this: He interjected a remark which showed the drift of his mind somewhat in a direction backward; it was at variance with the purpose of the paper, namely, that a child with a tuberculous parent who did not develop tubercle would have neuralgia. We do not believe tuberculosis is hereditary.

The other point was the great number of his therapeutic resources as demonstrating one fact which must press itself home to every practitioner, namely, that wherever we have any trouble in which we employ such a multiplicity of agents we have not got the right agent after all.

Dr. Martin F. Coomes, Louisville: The paper gives me an opportunity of saying that too many spectacles are put upon people in this country by eye doctors. We all know that a bad optical defect may cause a neuralgia, but we do not meet with such cases every day. Two or three modern writers have gone to an extreme and have claimed that all these headaches can be relieved either by the adjustment of spectacles or by a partial tenotomy. I

have found few headaches cured by the use of spectacles. I have an ideal case now in my mind's eye in the person of a young lady who is hysterically neurotic. She is partially blind with severe headaches. She was sent to me by a physician who insisted that the headache could be cured by the adjustment of glasses. Her vision was in such a condition that I could not adjust the glasses. Glasses have not been adjusted, and her headache is gone. This case simply goes to prove this point, that if I had adjusted glasses in her case the claim would have been laid to the spectacles as a cure. The girl has gotten well, but she has an optical defect, maybe a hyperopia, or possibly astigmatism. I do not believe the optical defect had any thing to do with the headache. From the cases I have seen in practice I am convinced that the cases that result from headache are much fewer than we are led to believe. People have headaches from various causes, but I am sure that in quite a number of cases they are not produced by optical defects, nor will the application or adjustment of spectacles cure all these cases, and the sooner the men who are engaged in this work realize this fact the better it will be for all.

Neuralgias about the eye, as the author states, have a general cause, often reflex, occurring from bad teeth or from the involvement of the fifth nerve.

Dr. John A. Larrabee, Louisville: In regard to neuralgia, I think the author will agree with me that two thirds of his cases are among females, and very many of them are among young females, and most of them among society females. The modern society girl is a living curiosity. She goes to an afternoon party, goes to a ball at night, and then perhaps the next night to a progressive euchre party, and progressive euchre with females I believe is a synonym for progressive neurasthenia. Look at her at ten o'clock the next day. She gets up from a sea of dreams, with a bandage around her head and over her eyes, looking like a picture of justice and complaining of neuralgia. Hysteria with her is a natural consequence; in fact, I may say it is pastime, and headache is a consequence. We have heard a good deal about the condition of the hemoglobin in the blood corpuscle. What about the nerve element itself, which being depleted, shriveled, changes in form and structure, as observed in experiments under the microscope? These are the causes of increasing neuralgia among females, and all the treatment that can be applied with Franklin's maxim added to it will fail to cure these cases as long as such drafts on the bank of health are made.

Dr. Curran Pope, Louisville: I would like to say in answer to Dr. Greenley that I have used cups with a considerable degree of success in sciatic neuralgia, and I may say I have used them with success also in sciatic neuralgia as differentiated from sciatic neuritis. That leads me to the points Dr. Marvin made. It would have afforded me great pleasure to have entered into the differential diagnosis, but with me and with most neurologists a neuritis is a fixed disease. It is not a neuralgia. It has its definite.

well-recognized symptoms, and therefore the only bearing that neuritis could have upon neuralgia is in differential diagnosis.

I am sorry that my meaning in some instances was a little cloudy or misconstrued with reference to tubercular children or the children of tuberculous parents. I recognize very well with Dr. Marvin that a person does not inherit the disease. He may inherit a proclivity to a certain disease, and the idea that I endeavored to convey was this, that children springing from tuberculous parents, whose procreative powers for healthy children are lessened, are defective nutritionally and form a favorable soil upon which functional nervous disease can be grafted. Dr. Marvin states that the therapeutic field here presented is evidence that few remedies are known as successful, and yet he allows that painful neuroses are the *bête noire* of the profession; he confesses that we are confronted by a large aggregation of troubles, to treat which would require us to go over an extensive therapeutic field. If we take into consideration the number of these cases presenting different phases, it will be allowed that the physician is better prepared to cope with them who has at his command large therapeutic resources than he who simply gives drugs according to the older methods.

The question of treating neuralgia in a society woman, as Dr. Larrabee has pictured her, is a trying one. It would require a social revolution to treat these cases. While we may do a great deal to improve their general condition, the root of the trouble lies in the social condition in which she lives.

Dr. J. B. Marvin, Louisville: The author misapprehended my criticism. I was making this point, that we may have neuralgias, as he defines it, dependent upon malaria, syphilis, gout, or rheumatism. Now, to label these neuralgia and treat them as such is not the proper thing. That is the *bête noire*, calling the symptom the thing, and classifying the thing as a functional trouble. If I find gout, syphilis or rheumatism, I treat it, and not simply the pain arising from it.

Dr. Pope: I had mentioned in my therapeutics the treatment of the underlying diathetic conditions. These must be looked after as well as the treatment of the local trouble.

On motion of Dr. Dudley S. Reynolds, Dr. J. H. Kellogg, of Battle Creek, Michigan, was made a member by invitation, and invited to participate in the discussion.

Dr. Harry J. Cowan, of Danville, read a paper entitled "Traumatic Peritonitis in Children." [See page 169.]

The paper was discussed by Dr. R. B. Gilbert, Dr. J. G. Carpenter, and in closing by the essayist.

DISCUSSION.

Dr. R. B. Gilbert, Louisville: I would ask the author if in those cases of peritonitis following a slight blow the children had a predisposition to

inflammatory reaction? The cases reported are unusual. Children have received many blows equally as severe, and yet peritonitis has not followed as a consequence. In a child with a tubercular diathesis I can understand how traumatism may quickly set up an inflammation which would go on to rapid destruction. There is another form of peritonitis not mentioned in the paper which occurs in children, and that is peritonitis caused by perforation of the wall of the abdomen by lumbricoid worms. I have seen one or two cases on *post-mortem* examination which occurred in that way. They were supposed to have been traumatisms caused by slight blows, but these parasites were the real cause, as demonstrated *post-mortem*.

I had one case last summer in the Louisville Hospital supposed to be caused by traumatism, but on inquiry I found there was a decided tubercular diathesis, and on *post-mortem* the tubercular peritonitis was general.

Dr. J. G. Carpenter, Stanford: I do not believe there is any such thing as idiopathic peritonitis. There are undoubtedly some cases of a tubercular diathesis that predispose the peritoneum to inflammations, and a slight trauma or blow may kindle this inflammation. I also believe that it is conservative to treat these patients by a good laxative in preference to the opium plan.

Dr. Cowan (closing the discussion): My paper simply dealt with traumatic peritonitis, and not with tubercular peritonitis. I do not believe the former is a rare affection. Children certainly, and adults also, receive many contusions of the abdomen without the production of peritonitis. Because many soldiers go to battle and many return without getting shot, it is no proof that it is not dangerous to be exposed to the bullets on the battle-field. Of course, if traumatic peritonitis should occur in a child with a tubercular diathesis, we would believe the trauma possibly brought on an acute exacerbation of the previously existing tubercular peritonitis, but the paper was not about children of that kind. It concerned those who were previously in good health and were suddenly taken with peritonitis. Tubercular peritonitis I ruled out of the question, and also forms of peritonitis which are due to any kind of diathesis, as peritonitis following scarlet fever, measles, any general disease or diathesis. The paper dealt with peritonitis following injury. I took pains in reading it to state that it referred only to those cases in which peritonitis was acutely developed in a child that had been previously healthy.

Dr. Martin F. Coomes, of Louisville, reported a case of nasal surgery and exhibited the patient. Adjourned.

The Society reassembled at 2 P. M., and was called to order by the President.

Dr. Dudley S. Reynolds, of Louisville, read a paper entitled "Syphilitic Diseases of the Eye." [See page 173.]

Discussed by Drs. S. G. Dabney, J. M. Ray, William Cheatham, Harry J. Cowan, and in closing by the essayist.

DISCUSSION.

Dr. S. G. Dabney, Louisville: I consider the statement the author quotes from Hutchinson to be wisely placed, iritis in infants being often thus complicated. The fact that the iris is sometimes glued down to the lens must not be forgotten. I recall the case of a patient I saw not long ago who evidently had inherited syphilis, and had iritis in which the iris was glued to the lens behind it. As has been said, iritis at any age needs active treatment.

In regard to keratitis, it is one of the most common forms of syphilitic manifestations of the eye, an inherited form of the disease. The treatment is usually unsatisfactory as regards time. It takes a very long time usually to cure these cases, do what you will. Not only iodide of potassium but tonics are generally needed, and hot applications as well.

I believe I understood the essayist to say that he regarded retinitis pigmentosa as the product of syphilis, or at least he quoted authorities as saying such. [Here Dr. Reynolds read extracts from his paper giving the views of different authorities on retinitis pigmentosa.]

Dr. Dabney (resuming): The view that retinitis pigmentosa is transmitted syphilis from parents or remote ancestry is not generally held. That it is a hereditary disease, whatever be the cause, will not be denied. A gentleman, about fifty-four years of age, came to me giving a remarkable history of retinitis pigmentosa with the classical symptoms—night blindness, telescope vision, the patient unable to see around him. The disease had been transmitted from generation to generation, the first case dating back to a period before the Revolutionary War. Antisyphilitic treatment seems to be of no avail. It is an incurable disease in spite of all measures that may be instituted as a rule.

Dr. J. M. Ray, Louisville: What the author said with reference to syphilitic diseases of the eye, both the result of acquired and inherited syphilis, is most interesting. It seems to me we can draw a distinct line between eye diseases the result of inherited syphilis, and those the result of acquired syphilis. We may safely say that the inflammatory diseases of the iris and a few diseases of the retina, ciliary body, and choroid are about the only forms of eye disease that we get as a result of acquired syphilis. In inherited syphilis we find not only the optic nerve and retina involved, but a most interesting condition of the cornea, occurring most frequently in children under or about the age of puberty, but sometimes seen later in life.

I am in accord with the essayist as to the efficacy of iodide of potassium in the treatment of these cases. I have certainly seen syphilitic diseases of the eye and gumma about the iris and ciliary body disappear rapidly under the internal administration of this remedy, combined with some mydriatic. At the same time I have seen a patient suffering with syphilitic iritis in one eye accompanied by gumma, who, under the influence of the iodide, showed a gradual diminution of the inflammation in the inflamed

eye, but at the same time developed a similar condition in the other eye. If iodide of potassium is really an antidote for the syphilitic poison, it would seem to me impossible for iritis to develop in the other eye. I usually combine with the iodide some mercury, and after I get rid of the acute inflammatory symptoms I advise the patient to take mercury for some weeks or months afterward. While the iodide controls the local symptoms, to have any effect on the syphilitic poison we are forced to resort to the use of mercury internally.

Dr. William Cheatham, Louisville: I recall a peculiar case of inherited syphilis. A patient, about thirteen years of age, came to me with a perfect interstitial keratitis and iritis, and I told the patient's physician that I thought a course of antisymphilitic treatment was indicated, that the patient had probably inherited syphilis. He said that such a thing was not possible. I have since treated the case as being one dependent upon syphilis, and the patient has gotten along nicely. While treating the case I managed to obtain a history something like this: The mother one day had a severe headache when she was nursing this boy, and a negro woman offered to nurse the child for her; shortly after which a sore was noticed on the nipple. The negro woman had a sore on her lip, and in a few days the mother of the child was inoculated, and she in turn inoculated the father. Here was a case of acquired syphilis, yet as perfect a case of interstitial keratitis as one could wish to see. We can not always make a diagnosis of inherited syphilis in these cases. I treated the patient with iodide of potassium and mercury combined.

Dr. Harry J. Cowan, Danville: In reference to the congenital occurrence of retinitis pigmentosa, I wish to say that it is generally conceded that deaf-mutism occurs from consanguinity of marriage and in particular families. At the institution for deaf mutes in Danville there are many children belonging to the same family, and as there are only about two hundred children there at one time, and as I have seen six cases of retinitis pigmentosa within six years within that institution, it seems to me to lend color to the fact noted many times before, that retinitis pigmentosa occurs more frequently in deaf mutes than in any other class, and it certainly is a fact that deaf-mutism is hereditary.

Dr. Dudley S. Reynolds, Louisville: I shall not have very much to say in closing except this, that Galezowski, of Paris, in 1863, I believe, in a clinical memoir on the diseases of the optic papilla and retina, reported quite a number of cases of retinitis pigmentosa in which, by the long-continued use of the bichloride of mercury, the entire arrest of the progress of the disease had been witnessed, and in some cases an abatement of the inflammatory action in those circumscribed spots of the retina already involved when treatment was begun. In other words, that where the beginning focus of inflammation was observed in the retina it ceased at this point, leaving a small atrophic spot with a distinctly defined, irregular cobweb encircling it of pigmented matter, and it presented a well-marked form resembling a

bone cell, which is characteristic of the pigmented condition of the retina when allowed to go on unrestrained. I saw a number of Galezowski's cases during my first visit to him which had improved under this treatment, and when I saw them at my second visit I was stimulated by the treatment to give it a trial. I have at least four cases that have been improved by the treatment, and more than half a dozen others in which the disease has not advanced perceptibly since treatment was begun. I do not believe myself any possible agency could cure the disease outright, as there is great tendency to recurrence, but while the patients have been under treatment the disease has not advanced.

As to the statement of Dr. Ray in reference to a distinction between inherited and acquired syphilitic diseases of the eye, I must dissent from the view that the iris, ciliary body and choroid alone are affected in acquired syphilis. I would like to say, I have seen mucous patches about the conjunctiva, the lining of the lid, and on the surface of the cornea. I have likewise seen syphilitic ulcerations in these structures and in the substance of the lid, destroying the cartilage, skin, conjunctiva, and intervening structures. I recall a case at this time in which a gummatous formation developed, and resulted in ulceration which notched the upper lid. Retinitis and optic neuritis are common occurrences in acquired syphilis, and the apoplectic form of retinitis seen in syphilitic subjects is not seen in acquired syphilis. Optic neuritis is a common thing in acquired syphilis, following in the wake of a neuritis, leading to secondary or tertiary phenomena, or being in fact one of the earliest manifestations of the tertiary period of syphilitic invasion.

Dr. Cowan's remarks are of unusual interest and deserve special notice from the fact that he thinks deaf-mutism in general is an hereditary condition. I would like to remind him and those who are engaged in aural practice that occasionally we find a child who, from some accidental affection of the pharynx, or some accidental plugging of the external auditory canal with foreign matter, is prone to deaf-mutism. A discomfort is created in the ear of children who learn to talk. There is a case in Georgetown which may be known to Dr. Cowan. A certain gentleman's daughter had learned to talk, and having an affection of the pharynx suffered a great deal from increased deafness. She gradually lost the power of speech, so much so that she could only utter indistinct, inharmonious, disagreeable guttural sounds. She could not utter a word of any thing bearing the semblance of an attempt at vocal expression. This child, under treatment, recovered, not completely, but sufficiently to hear loud conversation at a distance of three feet. She has regained the power of speech, is going to school and acquiring her education at Georgetown. I mention this case to illustrate a large class of cases familiar to all aural surgeons.

Dr. Cowan: I do not call that class deaf-mutism.

Dr. Reynolds: Dr. Cowan says there are about two hundred children in the institution for deaf mutes in Danville, and that there is on an average

one case of retinitis pigmentosa to the two hundred children assembled there is not in anywise remarkable to my mind. Why? Because I take it for granted that the children in that institution, as in other eleemosynary institutions, are generally the progeny of parents in ordinary circumstances. I think about one in two hundred is about a fair average in this class of persons to exhibit retinitis secondary to pigmentation, as has been referred to by Hutchinson and Galezowski, and Gradle, of Chicago. The cases differ in the manner of advancement and the extent and character of pigmentation, but they are nevertheless cases of pigmentary degeneration of the retina, which advance in circumscribed areas and not in the whole field at once.

Dr. J. M. Ray: In reference to syphilitic diseases of the eye, inherited and acquired, I did not consider diseases of the eyelid, in which gummæ and ulcerations are quite common. I referred to diseases of the eyeball.

As to inflammations of the optic nerve, I *have never in my experience seen a single case of optic neuritis attributable to syphilis*. I have seen iritis secondary to gumma, but not optic neuritis as a result of syphilis.

(TO BE CONTINUED.)

Reviews and Bibliography.

Text-Book of Medical Chemistry, for Medical and Pharmaceutical Students and Practitioners. By ELIAS H. BARTLEY, B. S., M. D., Professor of Chemistry and Toxicology, and Lecturer on Diseases of Children in Long Island College Hospital, etc. Third edition, revised and enlarged. With eighty-four illustrations. 684 pp. Price, \$3. Philadelphia: P. Blakiston, Son & Company. 1894.

Owing to the fact that most of the medical colleges have extended their course of study from two to three years, the author has thought fit to enlarge and greatly rewrite the present edition of this work. It is not to be expected that any new facts or features of great value will be found, as the recent additions to chemistry are not matters that concern the beginner. Conciseness, clearness, and graphic presentation are what the student requires, and the author in this production seems to have hit upon the happy mean in all these regards. The student who shall be able to stand a creditable examination in this work need not fear comparison in chemical knowledge with the average graduate of medical schools.

A Manual of Therapeutics. By A. A. STEVENS, A. M., M. D., Lecturer on Terminology and Instructor in Physical Diagnosis in the University of Pennsylvania, etc. 435 pages. Price, \$2.25. Philadelphia: W. B. Saunders. 1894.

This is a brief but clear presentation of what is most generally approved in practical therapeutics. Still, when one compares the number of the medicaments embraced in this treatise and those that appeal to the public

through the medical journals, he will be led to think that the text-books ignore all that is to-day worth using in the way of drugs. Though on still closer inspection he may be led to ask if the list in the briefest of the text-books might not be still further abridged. Any one merely glancing over the field of popular and scientific therapeutics, passing from the classic *materia medica* through the proprietary list of cure-alls, the newspaper list of wonder-workers down to the idiotic jumble of the homeopaths, is driven to ask in the slang phrase of the day, "where are we at?" One would like to see the day, at least to enjoy the hope that it would ever come, when honest judgment and good sense would give to suggestion and to the natural forces of the system their due share of credit, and that so we might reasonably know what medicines can do.

Meantime let manuals of therapeutics follow the course of this one and grow smaller instead of larger.

D. T. S.

A System of Genito-Urinary Diseases, Syphilology and Dermatology. By various authors; edited by PRINCE A. MORROW, A. M., M. D., Clinical Professor of Genito-Urinary Diseases of University of New York, etc. With illustrations. In three volumes. Vol. III, Dermatology. 976 pp.

The remarkable growth in the magnitude of volumes devoted to each special branch in medicine is well calculated to discourage the beginner, as it is sometimes believed to be carried to excess by many who are not beginners. But no one who has attempted to make diagnoses in the multifarious forms of skin disease has yet found reason to complain of fullness of description. In the volume before us this feature is presented in apparent perfection. Every leading specialist in these lines has presented his tribute, and in the master hand of the editor it has taken on beautiful literary form. The work need hardly be commended to the specialist in its department; doubtless every one has it. It is to him indispensable. It is only to the general practitioners outside of large cities who have all classes of diseases to pass upon that it need be commended as supplying means by its accuracy, clearness, and fullness of description to diagnose whatever well-marked cases may be met with in his experience.

Supplement to the Reference Hand-Book of the Medical Sciences. By various writers. Illustrated by chromo-lithographs and fine wood-engravings. Edited by ALBERT H. BUCK, M. D., New York City. Volume IX. 1076 pp. New York: William Wood & Company. 1893.

The present volume is the outcome of a decision to bring the Reference Hand-Book of the Medical Sciences fully up to date. There is much matter of a more miscellaneous character than that supplied by the volumes of the regular series, and doubtless some that will not be found in future editions. On the whole, however, this is the weightiest work that has ever been undertaken in this country in the field of medicine. It is highly creditable to its authors, to its publishers, and to the country. No physician whose means will allow him to gather from his medical studies the highest pleasures they afford, and the great advantage of being fortified at all points, will deny himself this reference library.

The Care and Feeding of Children. A Catechism for the use of Mothers and Children's Nurses. By L. EMMET HOLT, M. D., Professor of Diseases of Children in the New York Polyclinic, etc. 66 pp. Price, 50 cents. New York: D. Appleton & Company. 1894.

Those who have made the attempt to have busy mothers and nurses read the ordinary nurses' manuals know how difficult it is for many of them to summon the necessary time and attention. Especially is this the case with the very class who have most need of such instruction.

This work obviates completely the difficulties commonly encountered, every paragraph claiming independently the attention. So much for the method. As to the quality and value of the work it is enough to say that it is by Dr. L. Emmet Holt.

D. T. S.

A Clinical Manual. A Guide to the Practical Examination of the Excretions, Secretions, and the Blood, for the use of Physicians and Students. By ANDREW McFARLANE, A. B., M. D., Instructor in Neurology and Diseases of the Chest in the Albany Medical College. 139 pp. New York: G. Putnam's Sons. 1894.

This is a well-made compilation from various authoritative works in the department to which it belongs, and for ready reference with those who have made fuller study, but who at the time may need a brief reminder. Those who are prepared for the work it lays out are very likely supplied with the authorities from which it is compiled, and it is hardly full enough in description to attract the learner. Still it may meet the needs of a considerable class of readers.

Index-Catalogue of the Library of the Surgeon-General's Office, United States Army. Authors and subjects. Vol. xv. Universidad—Vzoroff. Washington: Government Printing Office. 1894.

This volume of the Index-Catalogue contains the index to 6,152 titles, 3,312 volumes, 4,235 pamphlets, 8,569 book-titles, and 35,667 journal articles. When one reflects that fifteen such volumes have appeared, the amazing amount of contribution to medical literature may be approximately conceived, and well might prayers go up for some method of winnowing, for it can not be a great while until even the indexes to the indexes will be cumbersome. Nevertheless this is a work of marvelous industry.

Essentials of Physics Arranged in the Form of Questions and Answers. Prepared especially for students of medicine. By FRED. J. BROCKWAY, M. D., Assistant Demonstrator of Anatomy at the College of Physicians and Surgeons, New York. Second edition, revised, with one hundred and fifty-five illustrations. 330 pp. Price, \$1.

Finding the standard works on physics too voluminous to be used as text-books for medical students preparing for examination in this branch, the author has here aimed to compile a book suitable for that purpose. The compilation has been made mainly from Gage's, Chandler's, and Barker's physics, and the author will doubtless win the thanks of every student who has need of assistance along this line. The work is a model of perspicuity.

A Manual of Instruction in the Principles of Prompt Aid to the Injured. Including a Chapter on Hygiene and the Drill Regulations for the Hospital Corps U. S. Designed for military and civil use. By ALVAH D. DOTY, M. D., Major and Surgeon Ninth Regiment N. G. S. N. T.

This manual is intended to impart the knowledge of the principles of prompt aid to the injured to non-medical persons. The author has taken special care to give information in such a way as not to encourage the usurpation of the functions of the physician or surgeon. In addition to a careful and very full consideration of all pertinent features the Manual of Transportation now used in the United States Army has also been introduced into the work.

Essentials of Diseases of the Eye, Nose, and Throat. In two parts. Part 1st: Essentials of Refraction and the Diseases of the Eye. By EDWARD JACKSON, A. M., M. D. Part 2d: Essentials of Diseases of the Nose and Throat. By E. B. GLEASON, S. B., M. D. Second edition, revised. 290 pp. Price, \$1. Philadelphia: W. B. Saunders. 1894.

This work, by two of the best authors in their respective departments, can not fail to meet with the warm approval already accorded it in the former edition. Very few alterations have been made in the text, except by the introduction of new matter, which the authors believed would add to its value. The typography and press-work are of the same attractive class that marks the work of this house.

Syllabus of the Obstetric Lectures in the Medical Department of the University of Pennsylvania. By RICHARD C. NORRIS, A. M., M. D., Demonstrator of Obstetrics, University of Pennsylvania. Third edition. 222 pp. Price, \$2. Philadelphia: W. B. Saunders. 1894.

This work has been favorably noticed in previous editions, and it remains only to be said that to this edition has been added all important matters introduced into the lectures during the last two years. It would be difficult to find a question of any importance in all obstetric literature that is not embraced in this syllabus.

Trephining in the Ancient and Modern Aspect. By JOHN FLETCHER HORNE, M. D., D. Sc. (Har.); F. R. C. S. (Ed.); Honorary Surgeon to the Barnsley Beckett Hospital, etc. 133 pp. Price 5 s. London: John Bole & Sons. 1894.

This is a very interesting resumé of the history of trephining and researches into prehistoric trephining, with a clear statement of the indications and methods of performing the operation according to the best authorities. It is an exceedingly readable as well as instructive book.

Fifteenth Annual Report of the State Board of Health of Illinois. Being for the year ended December 31, 1892. With an appendix containing the Report on Medical Education and Medical Colleges. Revised to December 31, 1893. Springfield, Ill.: H. W. Rokker, State Printer. 1894.

As usual this report is worthy of attention for its excellent work and as setting the pace for the health boards of other States. The part of most general value is the report on medical education and medical colleges.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Explosion in Mines; Increase of Rabies; Lunacy Returns; Cholera Precautions; Sir B. W. Richardson on Life; The Death-Rate; The Late Baron Mundy; A New Building; Meeting of the Health Congress; Ambulance Challenge Shield; Legislation for Bakehouses, etc.

Dr. I. S. Aldane has given an account of the causes and prevention of suffocation in mines. Dr. Aldane showed one or two experiments and a number of diagrams, on which were represented the positions of bodies found after explosions in mines, proving that many of the men had after the explosion traveled long distances, to be at last overcome by the fumes of the after-damp. The practical question was, could any means be devised whereby those miners, who were not killed by the blast of the explosion, could be kept alive for an hour or two so as to give them a chance of getting into the main ways. The Doctor exhibited a little box which he had devised, the principal part of which consisted of a cylinder of compressed oxygen, an apparatus being attached to it by which the miners, under circumstances already referred to, might breathe oxygen. The apparatus, he said, might be constructed at the cost of ten shillings.

The Board of Agriculture confesses to a feeling of alarm at the increase of rabies in England. In the year 1889 over three hundred authentic cases of dogs being affected by the disease were reported. The authorities then imposed a systematic muzzling of dogs all over the country. During the next three years there was a considerable decrease in the number of cases, only thirty-eight being reported in 1892. Last year the regulations having been relaxed, the total went up to ninety-three, and this year during the seven weeks ending July 7th there have been over a hundred cases.

Some discouraging statistics appear in the forty-eighth report of the Commissioners in Lunacy. The figures show that on January 1st there were 2,245 in excess of the corresponding number of the previous year, and shows the largest annual increase in the number of officially known lunatics yet recorded. This large augmentation follows an increase of 1,974 in the preceding year that being far above the average for the ten years 1882 to 1892, which was only 1,300. It seems to have been fairly general throughout England and Wales, but the predominant feature of the figures is the great rise shown for the county of London, its pauper lunatics numbering on January 1st last 800 more than they did a year previously, while its average

increase for the ten years, 1883 to 1893, was but 308. For the administrative county of Middlesex, which is fast becoming metropolitan, there is shown for last year an excessive increase, viz., 103, against an average for the previous ten years of 42.

Consequent upon the threatened invasion of cholera into the country, the officials of the Metropolitan Asylums Board have renewed the agreements made at the time of the threatened outbreak last year with the authorities of the general hospitals and the workhouse infirmaries, for the effective transport and accommodation of cholera patients. It is officially reported that in case of emergency 2,000 beds would be at their disposal.

"How to Make the Most of Life" was lately the subject of a discussion opened by Sir B. W. Richardson, M. D. According to him it is all nonsense to talk of three score years and ten making the proper span of human life. The average allowance all through the animal kingdom for a being born sound and healthy is fivefold the time occupied in reaching maturity. If then, that time be in the case of mankind twenty or twenty-one years, the natural term of our anatomical life should be one hundred or one hundred and five years. Sir Benjamin assured his hearers that such a plan was not only attainable, but even easily attainable to the majority of healthy men and women if they were born favorably and lived properly.

The Registrar General's report shows that the death-rate in almost all the great towns continues to be most satisfactory. In London it is but 17.1, and in most of the provincial towns even lower. In Birmingham it is 12.8, and in Swansea 12.0. It exceeds 20.0 only in Wolverhampton and Manchester, while in Sunderland and Liverpool it attains 30.6 and 30.9 respectively; that is to say, in the two towns the mortality is double the average of that in all the other larger towns. While smallpox during the second week of August carried off four victims, diphtheria is responsible for fifty-seven deaths, a number equal to the aggregate of those who succumbed to smallpox, scarlet fever, typhoid fever, and measles. Influenza still lingers among the population, and was responsible for seven deaths.

The unfortunate death of the well-known doctor, Baron Mundy, of Vienna, has filled all classes who knew him with sorrow and regret. The Baron committed suicide by shooting himself in the Vienna Theater. The cause of the rash act was his long-continued suffering from an incurable malady. The deceased, a talented and much respected man, was in his seventy-first year. His name will always be indissolubly associated with his charitable labors, and especially with that great foundation which owes its existence to his endeavors, the Vienna Volunteer Street Ambulance Society. His labors in the field, and his work to improve the military ambulance made him a fitting founder of the Vienna ambulance service.

The Earl of Derby formally opened a new school for deaf and dumb children of North and East Lancashire. The institution, which will accommodate fifty inmates, has been erected by private subscription. His lordship warmly commended the public spirit of Lancashire people in raising

such institutions for the benefit of their afflicted fellow-creatures. Among those present were delegates from the International Deaf and Dumb Conference which had just concluded at Blackburn.

In one of the loveliest bits of Surrey, sheltered by beautiful hills, is the site chosen for the Charing Cross Hospital Convalescent Home. The home, which is intended to accommodate fifty patients—twenty men, twenty women, and ten children—will when finished be thoroughly up to date in all its arrangements.

The annual competition for the Volunteer Ambulance Challenge Shield has just taken place at Wellington Barracks. Twenty-three sections of ambulance men from as many different corps of volunteers competed. The tests were stretcher and wagon drill. At the close of the competition, which lasted about four hours, it was announced that it had been won by the men of the Civil Service Rifles.

With much pomp and in imposing procession the delegates to the Health Congress during their stay in London attended a special service at St. Paul's Cathedral. They first met at Apothecaries' Hall, where they formed into line with the mayors of provincial towns and the Fellows and members of the British Institute of Public Health, and marched in their official or academical robes and hoods to the cathedral. At the top of Ludgate Hill they were joined by the Lord Mayor and City Sheriffs, who had come from the Guild Hall in state in order to do them honor. The long procession afforded an unusual and striking spectacle and was witnessed by a large crowd.

The Eighth International Congress of Hygiene and Demography, to be held at Buda-Pesth next month, will be a great success. Dr. Ayres, the principal Government medical officer at Hong-Kong, is sending a full report on the plague, and Dr. Simpson, of Calcutta, has written a paper on the comma bacillus, and the veteran Miss Florence Nightingale has promised a communication on "Village Sanitation in India."

The London County Council is about to undertake the supervision of bakehouses in order to enforce proper sanitary arrangements and the duty of granting licenses. It is not denied that the interests of the public require the establishment of a stricter control over bakehouses.

LONDON, August, 1894.

Abstracts and Selections.

HERNIOTOMY FOR STRANGULATION IN INFANTS.—Notwithstanding the very rare occurrence of herniotomy on an infant in the practice of any single surgeon, Stern (*Centralblatt für Chirurgie*, No. 19, 1894,) has been able to add to a collection of 99 such cases, made by Knobloch in 1890, no fewer than 54 fresh cases taken from journals and hospital reports. Of the total number, 138 were cases of inguinal, and 14 cases of umbilical hernia. The remaining case was one of femoral hernia. In 110 cases the patient's age was under twelve months. The mortality in the cases of operation for strangulated inguinal hernia was about 28 per cent. The two tables taken together show that the mortality after operation for this form of hernia has, since the introduction of the antiseptic method, been reduced from 33 to about 21 per cent. The latter proportion, however, is regarded by Stern as too high, since in some cases the death could not be attributed to the results either of the strangulation or of its surgical treatment. He states that in his own list of cases the percentage of deaths from the hernia is not higher than 13.6. The prognosis of herniotomy for strangulated inguinal hernia therefore is less unfavorable in infants than in grown-up subjects, as in the latter the mortality under antiseptic conditions is about 19 per cent. In the total number (14) of cases of umbilical hernia the mortality was 50 per cent, and in those cases (11) which were treated antiseptically 36.3 per cent. In considering the difficulties of diagnosis in cases of strangulated hernia in young infants, the author remarks that in many of his collected cases the occurrence of urinary retention was noted. He holds that in doubtful cases the hernial rings should be explored, and that when the symptoms of strangulation are clear, herniotomy should not be delayed after a warm bath and taxis with the patient under an anesthetic have proved useless.—*British Medical Journal*.

PANCREATIC COLIC.—Holzmann (*Münch. med. Woch.*, May 15, 1894,) gives the further history of this case. A man, aged sixty-nine, had, two days after admission, severe pain in the left hypochondrium, radiating at times to the right. The attack of pain had been preceded by dull aching sensations in the abdomen. From the commencement of the colic salivation was noted. Distinct traces of sugar were found in the urine passed during the attack; the sugar was not maltose. In two abortive attacks there was no glycosuria and no salivation, but in the next severe attack both were present. Later the severe colic was accompanied by slight salivation and no glycosuria; whereas in the following attack salivation and fever were present but no glycosuria. No concretions and no real excess of fat were

found in the stools. The salivation, intermittent glycosuria, and fever were new facts in the case. The coexistence of these three symptoms was striking; they made the diagnosis even more certain than before. The salivation was due to the pancreatic disease, and not to the presence of vomiting or any gastric affection. It can not yet be said whether salivation occurs in pancreatic colic alone or in other lesions of the pancreas as well. A direct connection between the glycosuria and the colic could not always be established in this case. Fever is not unknown in this disease, and resembles that found in biliary and renal colic. Including the past history, the diagnosis was based on the following facts: Concretions in the stools, attacks of pain, pytalism, glycosuria, and fever. Injections of pilocarpin were given for some days before the patient's discharge without very obvious benefit; they were continued, however, three times a week, and no further attacks occurred. Theoretical considerations make a casual connection between these facts probable. At any rate pilocarpin is well worthy of a further trial. The administration of morphine during the attack seemed almost useless.—*Ibid.*

CHLORALOSE.—Chambard (*Rev. de Méd.*, June, 1894,) concludes a study of this hypnotic. Among the complications of the hypnosis are the following: (1) Psychical and psychomotor manifestations. Automatic actions have been noted in some cases. The author gives details of a case of somnambulism which occurred under its use. (2) Motor disturbance, such as tremor. (3) Synthesis of physiological action. As to its therapeutic use, chloralose is almost a certain hypnotic, but its action is at times variable. Thus a minute dose (0.1 g. to 0.2 g.) will sometimes produce a sleep lasting several hours, whereas at other times relatively large doses have no hypnotic effect. In insomnia, due to cough or to thoracic pain accompanying influenza, acute bronchitis, phthisis, chloralose in small doses seems to answer well. Chloralose, however, is not an analgesic, and it succeeds less well in the sleeplessness due to pain. In the dyspnea of chronic pulmonary disease and of cardio-vascular disease, good hypnotic results have been obtained. Chloralose has acted well in cases of hysteria, epilepsy, neurasthenia, mental affections, but in three cases of alcoholic insomnia the effect was only moderately good. Besides its hypnotic action, a quieting and soothing effect has been noted in several affections of the central and peripheral nervous system. In addition to its therapeutic effects, it provides a means of dissociating the most exalted and differentiated functions. Some diagnostic value has been attributed to it in hysteria, manifestations of this disease having appeared under its action. One drawback in its therapeutic use is its capriciousness, as well as its power of producing delirium and convulsive attacks, never very serious in themselves during the sleep. It has been known to aggravate the inco-ordination of locomotor ataxy and the tremor of paralysis agitans. In painful affections and in alcoholic insomnia it can not replace opium. In insomnia and cerebral excitement it can com-

pete with chloral. It is especially in cardio-vascular affections, even in their asystolic stage, which in the author's opinion give the strongest indications for its use.—*Ibid.*

CONGENITAL RICKETS NOT "FETAL RICKETS."—Herzfeld (*Centralbl. f. Gynäk.*, No. 18, 1894,) describes a female infant born of a single woman, aged twenty-eight. Labor was spontaneous, and the mother had none of the symptoms of rickets. On the other hand, the infant had all the signs of the common rickets, the true rachitis of children and adults. There was craniotabes, also softness of the cranial bones near the sutures and fontanelles, beaded ribs, and shortened, curved bones in the extremities. The left humerus was fractured in the middle of its shaft. There was a green-stick fracture of the right femur. Separation of the epiphyses was detected in both femora. Both feet were deformed by talipes equino-varus. The fractures were explained by the small quantity of liquor amnii in the uterus coinciding with the natural brittleness of the diseased bones. During the first ten days there was infiltration, apparently of blood, around the fractured humerus and femur. The temperature exceeded 104°. The infant was sickly and not expected to live. Herzfeld dwells on the difference between this case of true rickets developed before birth and the so-called "fetal rickets" of Kaufmann and Paltauf, which is a marked defect in development, with other signs of cretinism—deformed cranium, edema in thoracic and abdominal cavities, and myxomatous changes in certain organs. This disease is hardly rickets, "osteo-genesis imperfecta" of Stilling, but a distinct disease to which Herzfeld proposes to apply the name "chondrodystrophia fetalis."—*Ibid.*

GONORRHEAL ENDOMETRITIS.—Lantos (*Klinische Zeit und Streitfragen*, vol. viii, pt. 1, Vienna, 1894,) gives good advice as to the care with which uterine therapeutics must be used in cases of gonorrheal infection. When the uterine cavity is clearly involved the physician must at once set to work to cure it lest the disease spread to the tubes. Lantos here, however, warns us not to be too enthusiastic. The hasty use of the curette, or even of carbolic crystals, solid chloride of zinc, and other powerful caustics has set up the gravest complications. Even more gentle intra-uterine medication is perilous when the appendages are already involved in the infectious inflammatory process. Hence, should there be the least tenderness in either lateral fornix, the patient must be kept at rest for a few days, warm injections, etc., being administered. Whenever the condition of the genital tract shows that the endometrium may be safely treated, a Playfair's tube dipped into a one-per-cent solution of sublimate should be introduced into the uterine cavity. A still better method is the washing out of the uterus with a one-per-cent chloride of zinc solution by means of a double current catheter. When the cervical canal is made sufficiently wide the uterus must be plugged with iodoform gauze.—*Ibid.*

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LACTOSE, LACTIC ACID, AND THE LACTATES IN URINARY DISORDERS.

Milk as a diet for the sick, whether fresh from the cow or in a state of lactic acid fermentation, has been in use from time immemorial; but it seems that till recently only have milk sugar and its derivative, lactic acid, been credited with medicinal qualities.

It was long ago discovered that diabetics did well upon milk, notwithstanding the fact that it was rich in sugar; but the reason for this was not far to seek, for it was found that the sugar of milk fermented in the digestive canal, for the most part, into lactic acid instead of turning like starch and cane sugar into glucose.

It was also noted that patients with acute or chronic kidney disease had their troubles much ameliorated when put upon milk diet. This fact is so patent that it has been said, with fair scientific warrant, that a man might live to three score and ten without fear of degenerative kidney disease, if he would make milk the principal factor in his dietary.

Knowing these facts it was asked, has milk any medicinal constituent which is to be credited with the happy results obtained through its use, or is its value dependent alone upon the fact that it is made up of materials in the best possible combination for easy digestion and perfect assimilation?

No doubt much of the efficacy of milk is due to the qualities last named; but recent observations would seem to show that lactose of itself, or through its fermentative resultant, lactic acid, possesses marked diuretic properties, if indeed it be not competent to favorably modify disease in the kidney.

Acting upon these considerations, Dr. J. D. Reyerson, President of the New Jersey State Medical Society, in the *Times and Register* for July, claims to have treated chronic nephritis for two years by means of lactose with seemingly remarkable results:

The first case treated was a well-known gentlemen, aged seventy-four, of rather extensive and diligent business habits.

About December 15, 1891, he began to suffer from dyspnea, insomnia, pain in the head, emaciation, diarrhea at times, pulse irregular and feeble, heart apparently enlarged, urine scanty, dark colored, slightly albuminous, complexion dusky, slight edema, and emphysema present. For a considerable time during his illness a part of his diet had been eight ounces of milk a day. The symptoms continued to increase in severity until February 12, 1892. They were then of a grave character, pulse rapid and feeble, dyspnea urgent. Only eight ounces of urine excreted in forty-eight hours. Intellect dull. Clear symptoms of coma impending. I believed that death would follow within three days. There had been frequent consultations, and the treatment had been varied. At 6 P. M. three doses, each containing cocaine, grain 1-6; lactose, 40 grains, were ordered at 6 P. M., 12 midnight, and 6 A. M. When visited the following morning the improvement was surprising. The patient was bright and cheerful, had passed the most comfortable night for months, and said he was better after the second dose. The improvement continued, and the recovery was rapid and nearly complete. Was in fair health for nearly nine months. The symptoms returned, was only slightly benefited by repetition of lactose, and died in three months.

The lactose was prescribed not only as a vehicle for the cocaine, but also under a recollection of the benefit I had observed from the use of skimmed milk in other cases of kidney disease. I then believed that the active agent in these cases was the lactose in the milk.

After using the treatment most successfully in a few cases, cocaine was omitted, and it was found that the effective principle was in the lactose alone.

Since the case mentioned I have treated thirty cases in my own practice, in which I feel confident of diagnosis. Only three cases I regarded as chronic nephritis with exudation.

The remaining thirty cases I regard as cirrhosis of the kidney or interstitial nephritis. Of this number there was noticed: Emaciation in 22,

insomnia in 28, dyspnea in 24, pain in head 27, emphysema 11, heart complications 13, urine examined for albumen 22, albumen found in 8, average age 53, women 20, men 13.

Of this number six have died: Of apoplexy 3, exhaustion 2, coma 1.

Symptoms have returned in seven cases with more or less severity.

Fourteen cases have been treated by other physicians.

In eleven cases the disease had been recognized before coming into my hands. Nine cases were seen by several medical gentlemen, diagnosis confirmed, and treatment noted.

The author supplements his personal experience with reports of thirteen cases treated by other physicians at his suggestion. This swelled the number to forty-six, and he claims that "forty-three out of the forty-six cases were decidedly relieved."

From this the author concludes that—

The points of interest in regard to the treatment of chronic nephritis with lactose are:

1. Its uniform certainty of effect.
2. Its promptness of action.
3. Permanency of improvement.
4. As means of diagnosis.
5. Smallness of dose.
6. Benefit not through its direct action.
7. Dropsy not relieved by diuretic action.
8. Difference of effect of lactose taken in natural combination and taken in a free state.

In one case, which seemed to be a clear case of chronic Bright's disease, with abundant albumen, under the care of Dr. Wigg, a case that ran its course to death in about a year, the lactose had little effect, except on two occasions, when coma seemed impending. Then immediately following the use of lactose the unpleasant symptoms were removed, and a most abundant excretion of uric acid followed.

The following from the Philadelphia Medical News calls attention to the fact that the salts of lactic acid are also credited with therapeutic efficacy in the treatment of kidney diseases:

On June 5, 1894, I was called to see a man fifty-six years old, an employe in one of the departments here, who had enjoyed good health until last April, when he contracted a severe "cold," which was followed by rheumatism in the lower extremities. His appetite was variable, and at times he suffered with intense nausea. He was markedly anemic. He complained of persistent dull pains in the lumbar regions. His temperature varied from normal to 101°. There was pronounced dropsy of the face, abdomen.

and legs. The urine was scanty and high-colored, and rather of a smoky hue. It had a specific gravity of 1010, and contained 9 per cent by bulk of albumin. There were present also, blood, hyaline, and epithelial casts. The patient was directed to go to bed, and a diet of milk was prescribed. The bowels were kept open with concentrated solutions of magnesium sulphate, and infusion of digitalis was given as a diuretic. When I found that this treatment did not greatly benefit the patient, I tried strontium lactate in doses of thirty grains four times per day, as recommended by Professor Da-Costa. The man's appetite soon improved; his anemia diminished; his dropsical condition ameliorated, and the urine greatly increased in quantity, presented no blood, less albumin, and fewer casts. The drug is deserving of careful and extended trial in cases of nephritis, acute, subacute, and chronic.

Notes and Queries.

ALLEGED DEATH FROM VACCINATION.—On September 1st the adjourned inquiry into the cause of death of Ethel May Everest was held before Dr. C. Luxmore Drew at the Fulham mortuary. The infant was vaccinated when seven days old by Mr. Steer, medical superintendent of the Fulham Infirmary. Nothing unusual occurred for some time after the vaccination, which ran a normal course. At a later period a "rash" developed on the arms, legs, and head, and for this the child was taken to the Jubilee Hospital, where it was attended by Dr. Benham, on August 17th. On August 20th it became worse, and Mr. Saltmarsh was consulted. There was then difficulty in breathing and considerable swelling of the neck on each side near the angles of the jaw. Death occurred on the 21st. At the preliminary investigation Mr. Saltmarsh gave it as his opinion that the cause of the fatal issue was blood-poisoning. Considering the gravity of the case, for it was alleged that the death was connected with the vaccination, Dr. Drew adjourned the inquiry and ordered a *post-mortem* examination to be made. This was conducted by Mr. Pepper. The rash before referred to was eczema impetigo of the scalp. No eruption was detected on the arms and legs. The vaccination scar was perfectly healthy, and the axillary glands on the same side were normal. There was no trace of pyemia in any part of the body. Careful attention was given to the joints and meninges of the brain, as these parts are commonly involved in pyemia in young children, but they were free from any trace of inflammation. The mucous membrane of the pharynx was somewhat congested, and the associated lymphatic glands were greatly enlarged and much congested. There was no pulmonary disease to account for the difficulty in breathing observed by Mr. Saltmarsh. Mr. Pepper's evidence was to the effect that neither the vaccination nor the

"rash" had any part in causing the death, which was attributed to toxemia consequent on some acute affection, probably scarlet fever or diphtheria. It was true that no specific lesion was demonstrated in the throat, but the congestion of the part, taken with the manifest enlargement of the cervical glands and the absence of other recognizable cause of comparatively sudden fatal illness, warranted the conclusion arrived at. Had it been necessary, there would have been no difficulty in tracing the source of the humanized lymph employed in the vaccination, but the facts obtained by the *post-mortem* examination rendered further inquiry needless. The jury were unanimously of opinion that the vaccination had nothing to do with causing the death. The above case shows the advisability, nay, the necessity, of a necropsy when the ultimate cause of death is obscure. Mr. Saltmarsh was quite correct in the opinion he formed as to the blood-poisoning, but the all-important question to be decided was whether the vaccination and the fatal toxemia were in simple or causative sequence. This was uncontrovertibly answered in terms of the later medical evidence and by the verdict of the jury.—*Lancet*.

THE ADMINISTRATION OF POISONOUS REMEDIES.—The unfortunate accident which occurred recently in Guy's Hospital and by which a patient received an overdose of chloral must have resulted in the suggestion of more than one preventive method for future use. Even the most thorough course of instruction can not of course guarantee immunity from the risk of accident. Nevertheless more might be done than is now usual to so educate nurses as to render the commission of mistakes in dose-giving even more extremely improbable than they are at present. There is no reason why an education in elementary pharmacy, sufficient to insure their acquaintance with the doses and general actions of all the more usual remedies, and especially of poisons, should not form part of the nurse's curriculum. Ready remedies available as first aids in case of poisoning would also naturally be included. Thus a nurse would be furnished with a double check upon her liability to accidental error—namely, with that supplied by accurate prescription and by that which would be added by her own knowledge of correct and customary dosage. No one would lose, but all would gain by her increased intelligence. Nurses are occasionally employed as dispensers. Their efficiency in this department of work would be much enhanced by such an addition to their training as that we have suggested. Another unhappy incident reminds us that, in spite of multiplied warning, the folly of self-treatment continues to exercise among us a wide and occasionally disastrous attraction. One of its latest victims was a retired surgeon, who died a fortnight ago from the effects of chlorodyne, which he had long been in the habit of taking for cough. It is not known that he exceeded his usual quantity on the present occasion. He had himself grown weaker, however, and had probably arrived at that stage in chest disease at which any kind of sedative, and especially an opiate, must be used with great caution, if at

all. This case repeats a long familiar warning. We have in it a fresh illustration of the fact that for a safe and successful treatment not only an acquaintance with drugs but a knowledge of disease is needful. The former is no common property, the latter unattainable by merely subjective diagnosis even in the case of medical men. It is remarkable that chlorodyne, among the remedies employed by amateurs, enjoys an undesirably mischievous reputation. This fact alone should suffice to find a place for it and other opiate nostrums in the schedule of poisons unsalable but by prescription.—*Ibid.*

THE SECRETORY NERVES OF THE LACRYMAL GLAND.—A memoir with this title appears in the *Archives d'Ophthalmologie* for July, 1894, from the pen of Dr. Tepliachine, of Kasan in Russia, in which it is stated that as far back as 1860 Czermak observed that excitation of the trunks of the fifth pair of nerves in rabbits caused increased secretion of the tears. Herzenstein showed that stimulation of the lacrymal nerve produced the same effect, while division of this nerve was followed by continuous and free discharge of tears, which he regarded as a paralytic secretion. Wolferz, while supporting these observations, added that stimulation of the cervical sympathetic caused increased lacrymation, whether practiced before or after section of the lacrymal nerves. Up to this period observers were fairly in accord as to the innervation of the gland, but Reich now put forward his views, which were that moderate stimulation of the fifth nerve did not produce much, if any, increase of secretion. It was only when the excitation was very powerful and the muscles of the eye began to be affected that the secretion really appeared to increase. He was disposed to attribute the increase to reflex action through other nerves, such as the facial and the glosso-pharyngeal, with which the sympathetic nerve communicates through the greater and lesser petrosa nerves. The subject has been taken up by Dr. Tepliachine at the instance of M. Panas. He found that intra-cranial stimulation of the facial and glosso-pharyngeal nerves was followed by entirely negative results, though great difficulties were met with in the frequent and abundant hemorrhages that were unavoidably caused in exposing the nerves. The conclusions at which he arrived are briefly as follows: The view that the facial nerve is the secretory nerve of the lacrymal gland is not supported by facts. The secretory filaments which the lacrymal and the subcutaneous malar (a nerve that, when stimulated, causes increased lacrymation, especially in cats) contain run in their intra-cranial course in the trunk of the fifth nerve, and they probably participate in causing the increased flow of tears which is provoked in a reflex mode, and also under the influence of psychical emotions. The normal and continuous secretion of tears can not be regarded as purely the result of a reflex action proceeding from the excitation of the anterior part of the globe of the eye, and does not depend on the secretory filaments of the lacrymal and of the subcutaneous malar branch. It is more correct to consider the cervical sym-

pathetic nerve as the secretory nerve of the lacrymal gland, under the influence of which the normal and continuous secretion of tears takes place. The facts relative to the paralytic secretion of tears and their variations in quality obtained by the stimulation of the lacrymal nerve and of the cervical sympathetic are still undetermined and require investigation.—*Ibid.*

HABITATION AND OCCUPATION IN THEIR RELATIONS TO THE MORTALITY OF TUBERCULOSIS.—M. Lagneau, in comparing various European statistics, concludes: (1) That occupations exposing to dust cause a marked predisposition to tuberculosis, the mortality of stone-cutters, according to Swiss statistics, being 10 per cent. (2) Sedentary occupations predispose to the disease more than any others. Students and seminarians, according to Italian and English statistics, show 459 deaths per 1,000 from the disease. (3) Printers in England and lithographers in Italy show from 300 to 400 deaths per 1,000. (4) On the other hand, individuals living in the open air, as mountaineers, farmers, and boatmen, enjoy almost complete immunity from tuberculosis; Swiss statistics show a mortality among them of only 1 to 2 per thousand. As regards habitation, the sanitary statistics of 662 towns in France prove that the more dense the population, the greater the spread of tuberculosis.—*Boston Medical and Surgical Journal.*

FATAL ALCOHOL POISONING IN A CHILD.—Battrich in the *Jahrbuch für Kinderheilkunde* mentions the case of a boy nine and a half years old who drank a quarter liter of whisky. This was shortly followed by dizziness, loss of consciousness, and convulsions, which were chronic in character, involving the extremities and the muscles of the face. The pupils were contracted, the head hot, the trunk cool, the pulse slow. The convulsions subsided, but were followed by pulmonary edema, high fever, and extremely rapid respiration, and death in three days.

PROFESSOR BARON HEINRICH VON HELMHOLTZ IS DEAD.—To him aural and optical science owes more than can be readily named. Indeed, without his wonderful discoveries and demonstrations the specialties devoted to the eye and ear would be to-day in their infancy, and the grand army of specialists who are to-day getting rich out of his labors would be physicking in general medicine and grannyng women at the usual moderate rates of the miserable general practitioner.

ANTHRAX IN LONDON.—During the past twenty years 118 cases of anthrax have been reported to the sanitary authorities in London. Of this number 90 were in persons engaged in the hide and skin trade, 5 in persons engaged in slaughtering animals, 7 in persons engaged in the manipulation of horsehair or the manufacture of brushes, 1 was employed at a bacteriological laboratory, while in 15 instances the source of infection was not traceable.

Special Notices.

J. A. CULLOM, M. D., Crandall, Texas, says: I have used Papine and am highly pleased with the results. I have several patients subject to severe attacks of neuralgia and migraine who can not use morphia or opium on account of their distressing after-effects, such as extreme nausea and prostration. Papine acts like magic, relieving the excruciating pain, and there is positively no nausea or prostration following. I find a combination of Papine and Bromidia, equal parts, given in teaspoonful doses, to act like a charm in those cases of hysteria which call for an opiate, in combination with the Bromides. Bromidia alone is the ideal hypnotic, and I get grand results from it in all cases of nervous irritability and hystero-epilepsy. It is my sheet-anchor in all cases of convulsions depending on or caused by irritability of the nervous system.

CHEMICAL FOOD is a mixture of Phosphoric Acid and Phosphates, the value of which physicians seem to have lost sight of to some extent in the past few years. The Robinson-Pettet Company, to whose advertisement we refer our readers, have placed upon the market a much improved form of this compound, "ROBINSON'S PHOSPHORIC ELIXIR." Its superiority consists in its uniform composition and high degree of palatability.

AN EXCELLENT PRESCRIPTION for Obesity and Fatty Degeneration of the Heart, and said by some to have been used with good results in rheumatism:

R Phytoline, 2 ozs.

Sig: Ten drops an hour before and after meals in a glass of water (hot if possible). This prescription can be filled by any retail druggist in the United States.

DIOS CHEMICAL CO., St. Louis, Mo. *Gentlemen:* I received your Sennine and have been treating catarrh of long standing; the benefit I have derived is simply immense. I believe it will cure any catarrh. Respectfully,

T. B. MCCLURE, M. D., Memphis, Tenn., March 1, 1894.

I HAVE pleasure in offering my testimony to the virtue of Cactina (in pillet form) in cases of inordinate cardiac action, and I consider it a valuable adjunct to the *Materia Medica*.

Plymouth, England.

DANIEL WILSON GWYNNE, M. D.,

Member of General Council, University of St. Andrews.

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THE
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"*NEC TENUI PENNÂ.*"

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

VAGINAL HYSTERECTOMY: REPORT OF A CASE.*

BY ARCH DIXON, M. D.

I wish to report the following case for two reasons: First, because I attempted to do the operation by enucleation, and second, because of an unusual symptom which developed after the operation, of which I shall speak later on. There can be no question of the fact that total extirpation is the treatment for cancer of the uterus. For this there are many reasons. First of all, cancer of the uterus is primarily a local disease which develops by progressive invasion of cervical tissue until the lymphatics are involved and general infection takes place. To prevent infection by means of the lymph channels it is absolutely necessary to radically remove all diseased tissue, and this can be done only by hysterectomy, either vaginal or abdominal. It is a nice question to determine just when invasion through the lymphatics will occur, but it is safe to say that operation is demanded as soon as the diagnosis is made. Some time last winter I received a paper giving the technique of an operation for the removal of the uterus by the vaginal route, simple and bloodless. The paper was by a Dr. Pratt, of Chicago. The method described by him was to seize the cervix, draw down the uterus, make a circular incision just above the external os, and then peel the uterus out. This was accomplished in a few minutes without the use of the ligature or forcipressure, and with no hemorrhage. In the issue of

*Read at the June meeting of the Kentucky State Medical Society, 1894. For discussion see page 225.

February 10th of the Medical News, Dr. Robert Reyburn, of Washington, reported a case of vaginal hysterectomy for carcinoma of the uterus performed by enucleation without hemorrhage.

The patient was an old negro woman, sixty years of age, and the doctor seems to have met with no difficulty in freeing the uterus of its peritoneal envelope and removing it without hemorrhage; there was little shock, and the recovery was good.

I did not find the matter such an easy one in the following case: Mrs. C., of Pembroke, Ky., came to me on February 3, 1894, for diagnosis of a uterine trouble which had been pronounced cancerous by her family physician, Dr. Robert Paine, in July last, the time of his first examination. During the fall she went to Nashville and consulted Dr. Briggs, who advised immediate operation, which was refused. Upon examination I confirmed the diagnosis of Dr. Paine, and advised total extirpation of the uterus, although the disease had advanced so far as to almost render the case inoperable; the uterus was still movable by the finger in the rectum, but the walls of the vagina were involved anteriorly and posteriorly. Her general condition was good, and there seemed to be no involvement of the lymphatics. Operation was refused and she returned home. About the 1st of March I received a letter from her, stating that she had determined to place herself in my hands for operation, and would be in Henderson on the 5th.

Upon arrival she was taken at once to the sanitarium. On the 6th the uterus was thoroughly curetted and packed with iodoform gauze, and was afterward irrigated twice a day with one in five thousand sublimate solution.

On the morning of the 10th I did vaginal hysterectomy, assisted by my son, Dr. Arch Dixon, jr. Owing to inflammatory adhesions it was impossible to draw the uterus down, and it was necessary to incise the perineum and perineal body in order to have room for work. Anterior and posterior incisions were made, and, not having faith in the bloodless operation as described by Dr. Reyburn, I deemed it prudent to tie off the uterine arteries. Separation of the uterus from its posterior attachments with the finger could not be accomplished, owing to strong adhesions; the knife was therefore used and the tissue dissected back for an inch or more. The finger was again introduced and the peeling process proceeded without further difficulty as far back as the fundus. Anteriorly the difficulty was much greater, as the uterus and bladder were so closely connected as to be almost inseparable, and division had to be

accomplished by actual dissection with the knife. On the sides the detachment was comparatively easy. The operation was an exceedingly difficult one, due to the fixation of the uterus. The detachment of the uterus from the bladder had to be conducted with minute care and delicacy, and necessarily occupied much time. Notwithstanding the uterine vessels had been secured, I thought it prudent to adjust clamps before the entire removal of the womb, as the patient's condition was only fairly good and a loss of blood might prove serious. The patient was put to bed with a pulse of 110; reaction was good, temperature reaching 99.5° four hours after operation. There was a good deal of nausea and vomiting for two or three days. On the third day the clamps were removed, the patient became restless, and her pulse ran up to 140. Hemorrhage was suspected, but examination revealed no further indication of it. Delirium came on, and notwithstanding the temperature did not at any time reach above 99.5° she continued in a state of acute mania for ten days, when she regained her faculties as suddenly as she had lost them. This is the second feature to which I wish to call attention. After the third day there was neither nausea nor vomiting; temperature almost normal; pulse from 80 to 100, but the mental trouble was persistent. The patient imagined all sorts of things; that she had been taken away from her home for no good purpose, and was being kept in confinement to prevent her return. She became so violent at times that it required the nurse and several assistants to prevent her getting out of bed. She slept very little, but her appetite was good. This condition lasted for about ten days, when, as said before, she recovered her mind. There was no remembrance of any thing that had occurred. The time intervening between the beginning of the anesthetic and the return of her mental faculties was a total blank.

Her improvement after this was without note, and she returned to her home in Pembroke on the 6th of April, where she continued to improve, and with the exception of a rather obstinate cystitis is in fairly good health.

In this case the broad ligament was found to be involved, and a return of the carcinoma may be expected.

In regard to enucleation of the uterus, I do not question Dr. Reye's operation, but the case seems to have been a particularly favorable one. Owing to the age of the patient there was doubtless a relaxed condition of the peritoneum enveloping the uterus. But in younger subjects, and in those in which extension of disease has produced fixation of the uterus, I am inclined to think the procedure not

such an easy one as he described it. I should deem it at least prudent to secure the uterine arteries before entire removal of the womb. I am at a loss to account for the mania, beginning as it did on the third day after operation and continuing as it did for ten days. It began suddenly and violently, and ended in the same way. It could not have been due to the anesthetic (chloroform), nor to opiates, for she had only a few hypodermics of one eighth grain morphia, and they were given after the inception of the mania.

She did not suffer greatly from shock, as reaction had taken place in a short time after she was placed in bed. Her pulse ran up to 140 on the third day, but was soon reduced to 90 by the use of strychnia and trinitrin, nor did it again rise above 115. This feature of the case was one of great interest to me, and I should like to be able to assign a reasonable cause for it.

The cases of insanity following surgical procedure which so far have been reported are few, and the cause is still *sub judice*, although it is contended that in those forms of insanity following operations, shocks, diseases, or anesthesia, the true cause if carefully sought would usually be found a hereditary or an acquired predisposition, or both. Savage, of Bethlehem Royal Hospital, took this ground in 1887 in a paper read before the British Medical Association on "Insanity Following the Use of Anesthetics." He dwelt upon the fact that agents which caused temporary derangement of the mind might give rise to permanent derangement. Causes which could produce delirium, or allied states, could start insanity. This insanity often assumed a delirious type. The insanity might be transient or persistent, and end in progressive dementia or in general paresis. The opinion held as to the pathology of these cases was, that the anesthetic depressed the activity of the higher cerebral mechanism and left the lower to operate uninhibited. Of six cases, two recovered.

H. C. Wood, in an article on "Insanity After Acute Surgical and Medical Affections" (University Medical Magazine, December, 1889), holds that the fundamental condition in these cases of insanity is an altered state of cerebral nutrition. This altered state of cerebral nutrition may be caused by any disease, accident, operation, or mental worry. He proposed the name of Confusional Insanity for alienation following such cases. Five cases were reported, all of which recovered.

Charles D. Filibrown, writing from Hamburg to the American Journal of Obstetrics, January, 1889, mentions seven cases. Four of these followed gynecological operations of some kind. One died, one got

well, and two had nearly recovered with only occasional spells of short duration of hypochondriasis or excitement. The other three cases of insanity followed the rupture of some form of abdominal cyst—ovarian in one, pyosalpinx in a second, and extra uterine in the third. Of these two made good recoveries, while the third apparently got well, but subsequently committed suicide two months later. In the first three cases no hereditary tendencies to insanity could be discovered. With regard to the pathology of these cases, the author thinks they are of a reflex character. The peripheral irritation arising from the operation, or the rupture of a cyst, is reflected upon the brain and thus operates in overthrowing the mental balance.

At the meeting of the German Gynecological Society for 1888 (*Centralblatt für Gynecologie*) Werth gave an account of six cases he had met. The form of insanity was maniacal in one, melancholic in five. Three of the six recovered. He did not believe that their psychoses were functional disturbances produced by mutilation of the sexual organs. He refers these cases back to their psychological causes as found in other cases of insanity. In this view Saenger, Martin, and Ahlfeld concurred. He further held that operations on the genital tract did not cause insanity more frequently than other surgical operations. All seemed agreed that the predisposition to the insanity already existed, and that the surgical procedures only act as the exciting causes.

R. Barwell, at the Clinical Society of London (*British Medical Journal*), reported a case of insanity following ovariectomy. The operation was performed on October 28th, and the patient exhibited mental derangement November 3d. By November 7th she had to be secured. There was very marked insomnia, which was best relieved by ice-bags to the head. She had recovered and was discharged well on December 29th. Mr. Barwell stated that in conversation he had heard of several cases, as follows: One by Keith, after hysterectomy; two by Thornton, after ovariectomy and hysterectomy; one by Dent. Mr. T. Bryant mentioned two cases of insanity after ovariectomy in his practice. Both got better. Mr. Doran reported a case after ovariectomy in which mania was developed. The patient was still deranged at the date of the meeting. Mr. Meredith had met with a case of acute melancholia that came on four weeks after the removal of a tumor weighing seventy pounds. The patient was insane for two months and suddenly got well. There has been no return after four years.

Edis also mentioned a case of melancholia following ovariectomy. The patient recovered and continued well. In dealing with the pathol-

ogy Mr. Barwell remarked there was not always a family history of insanity. In his own case there was no hereditary taint. If it was an occasional sequel of surgical operations it had not received much attention. Though disturbance of the genital tract seemed to offer the easiest explanation, he did not think it was the real exciting factor. Altogether he thought that it was to be explained on the grounds of mental anxiety, loss of blood, exhaustion, etc.

The above cases are the first definite reports in British practice on insanity following operations on the female genital organs. Among the first cases on record in America of mental disturbance in women following surgical proceedings on the genital tract are the following:

In 1887 three cases of insanity following gynecological operations were reported by E. J. Ill, of Newark. In 1888 F. J. Shepherd, of Montreal, read a paper before the Medical Association of Canada (*American Journal of Medical Science*) in which a detailed account of six cases of insanity following surgical injury was given. Three of the six recovered. No suggestions as to the pathology of the cases were offered. T. Gaillard Thomas in 1889 read before the New York Academy of Medicine an article on "Insanity After Gynecological Operations." He recorded six cases in his practice, three of mania and three of melancholia. Four of the six died, one recovered and was improving at the date of the writing. No distinct heredity could be traced. In one case the attack was very sudden; in the remaining five there were distinct prodromata. During the discussion on the paper twelve other cases were reported. No opinion as to the pathology of any of the cases was offered.

There can be no doubt that operations on the sexual organs in those with hereditary taint are the exciting causes of insanity, but it may also be said that operations on the genital tract, in those who have no hereditary taint or predisposition, sometimes produce insanity.

The case reported by me was the first case of insanity which has fallen under my observation as following any surgical operation whatever, and was therefore of great interest. It began suddenly, and the recovery was sudden. There was no hereditary taint which could be traced. Certainly this subject should be one of interest to all gynecologists, since we find such authorities as Joseph Price, of Philadelphia, Landon C. Gray, of New York, George H. Rhoe, of Baltimore, Marie B. Werner, of Norristown Insane Hospital, and others advocating operations on the sexual organs for the cure of insanity.

A CASE OF CYSTICERCUS OF THE VITREOUS.*

BY W. CHEATHAM, A. B., M. D.

This affection being so rare in America, England, France, and countries other than Northern Germany, I feel justified in reporting a case that has come under my observation recently.

Mrs. F., aged forty-two, of Irish parentage, consulted me concerning her left eye. January last she had some severe acute inflammation of her left eye, in which there was intense pain and edema of the lids, which lasted for some weeks. She now has vision of the left eye $\frac{1}{4} \frac{5}{0}$ with no improvement by glasses. She has some scars of upper part of cornea simulating those found in trachoma, with slight pannus. I was surprised on everting the lid to find no indication of her ever having had trachoma. Vision right eye $\frac{2}{20} \frac{0}{0}$ and eccentric. She said her right eye had been blind—following a spell of sickness—since twenty-seven years ago. She did not come to consult me concerning her right eye, yet, as a matter of routine, I examined it. I found all the media perfectly clear. Just at or over the right macula I discovered a sac or cyst, pedunculated, the pedicle being attached to the retina above and external to the macula, the body of the sac extending down and in, over the region of the macula. The sac with its pedicle appeared a bluish-gray and opaque, except a part of the wall toward me, about the size and shape of the optic nerve entrance, which was transparent and through which the deeper or other wall could be seen. The eye was emmetropic with the ophthalmoscope. The highest or most prominent part of the sac, just at the transparent part referred to, could be seen best with a +10. D. showing an elevation of about 2.3 millimeters. The other cyst wall could be seen through this transparent portion best with about a +2. D. showing an elevation of about .52 millimeter. The sac was ovoid in shape with the edges at some points serrated, and at one point down and in there was quite a projection. Over this sac small blood-vessels could be seen; one up and in could be traced to a large retinal vessel close by. No motion could be discovered in this opaque cyst. Forming something of a crescent from the lower and outer part of this sac was a transparent, reddish cyst; at the upper part of this cyst could be seen two spots looking like air-bubbles, which were no doubt the parasite's suckers. This cyst, when watched

*Read at the June meeting of the Kentucky State Medical Society, 1894. For discussion see page 229.

closely, could be seen to have a distinct rhythmical motion; a spot of pigment beneath it would appear and disappear; the motion was perfect. Above the attachment of the pedicle of the cyst could be seen two white crescent-shaped spots, no doubt the points of entrance of the parasite. The retina between the cyst and optic nerve presented the appearance of a recent detachment. Several large vessels run from the nerve direct to the sac, some of them disappearing under and reappearing on the other side. There were many more large vessels taking this course than usual. This would probably indicate that the trouble is of long standing. The vitreous seemed to be detached over the optic nerve entrance.

Mrs. F. gives a history of several serious attacks several years ago of what she called congestion of heart and lungs. For six or seven years up to January last, when her left eye was so badly inflamed, her health had been very good. She thinks she is going through her "change." The left eye is usually somewhat inflamed every four weeks.

This case, besides being the second so far as I know of reported in America, presents other points of interest. Could this parasite possibly have been the original cause of the loss of vision of the right eye twenty-seven years ago? I think this possible and probable. The vitreous is clear and but little damaged; but small parts of the retina and choroid are damaged. The parasite, from the appearance of the parts, seems to have left its old bed and is migrating. Mrs. F. does not remember of ever having had any pain in her right eye. Could the disease she has had in her left eye be sympathetic? Sympathetic affections have their exacerbations and their times of quiet as we all know.

Foster, *Encyclopedic Medical Dictionary*, page 1237, says: "*Cysticercus Cellulosæ* is the larval stage of *tenia solium*. It has a quadrangular head, a long cylindrical body, and an elliptical caudal vesicle, and is from ten to fifteen millimeters in length."

Mauthner describes the animal as follows: "The worm is provided at its posterior end with a round cyst-like formation which acts as the receptaculum scolice, into which the animal can withdraw, presenting when in this position the appearance of a round, whitish body. A small hole marks the mouth of this small receptacle. When the animal protrudes its head and neck out of the receptacle its body appears to be sprinkled here and there with calcareous deposits and presents sometimes a smooth and sometimes a wrinkled surface. The body decreases in size toward the neck, to which is attached the head, with its four

flattened-down but angular projections. A round-shaped snout can be projected by the animal from the center of its head, and this latter is provided at its base with a double row of hook-like tentacles which are capable of retraction. Each of the angular projections of the head is, moreover, provided with a rounded sucking apparatus."

Schmidt-Rimpler, page 276, says the embryo enters the stomach of the suitable host in the food or water, loses its covering through the action of the gastric juice, bores into the blood-vessels with its hooks and begins to wander. Finally it becomes settled, and now begins the second stage of its development, in which it is known as cysticercus. It is converted into a vesicle with fluid contents. All authors agree that they travel by the blood-current. Cysticerci may occur in any part of the eye or orbit. They have been seen in the orbit, lids, conjunctiva, iris, lens, vitreous, choroid, and retina. They are found more often in the posterior part of the eyeball than in the anterior. They are quite common in Northern Germany, where uncooked meats are eaten; less often in Southern Germany, France, and Italy. There have been three cases reported in Austria. Brudenell Carter says none have been seen in England, but Soelberg Wells reports a case in his book, page 328. In Northern Germany Graefe saw eighty cases in eighty thousand patients, or one in one thousand, in the deeper tissues of the eye; three in the anterior chamber; five beneath the conjunctiva, and one in the orbit. Hirschberg in six months saw 2,100 new patients, in five of which he saw cysticercus, or one in four hundred and twenty cases of eye diseases.

Of the one other case seen in this country, reported by Dr. Minor, Loring, on page 188, says: "From the ophthalmoscopic appearances there was reason to believe that it was a true case of cysticercus, although it was not absolutely proved to be so." Yet from Dr. Minor's description of the case and the ophthalmoscopic appearances (page 193, Loring), I do not think there can be any doubt of its having been a case of cysticercus cellulosæ. How long a cysticercus can remain in an eye is in doubt. Cases of two and four years' standing are common. Von Graefe saw a case in 1856, which was twenty years afterward seen intact by Hirschberg. Others have reported cases of long standing with vision nearly perfect. My case, as I stated before, is possibly of twenty-seven years' standing. Usually, though, in from fifteen to twenty months irido-cyclo-choroiditis follows, and sometimes panophthalmitis with total loss of the eye. Von Graefe and Hirschberg state that there is not much danger of sympathetic inflammation, although sympathetic

irritation is often present. Jacobsen reports sympathetic amblyopia. Two cysts have been seen in one eye, but none reported of both eyes being involved. Patients with cysticercus do not have tape-worm. The presence of this parasite in the eye is so dangerous to the vitality and the usefulness of the organ, that its removal has been undertaken and with success, but not with very flattering after-results when it is located in the posterior part of the organ. When in the iris a section of this membrane can be removed that holds the parasite.

LOUISVILLE.

PELVIC DISEASE AND ITS RELATIONSHIP TO INSANITY IN WOMEN.*

BY JOHN YOUNG BROWN, M. D.

First Assistant Physician to Central Kentucky Asylum for the Insane, Lakeland, Ky.

The alienist, as well as the general practitioner, recognizes the influence of the sexual functions as a factor in the production of psychical disturbance in women. Even within the limits of physiological health the influence of this function is clearly seen. The various perversions of the senses during pregnancy, the functional neuroses of menstruation, and the psychical disturbances of the menopause and puberty are clearly illustrative.

While all agree that many neuroses, psychical depression, and reflex nervous symptoms can with perfect safety be charged to functional and pathological disturbances of these organs, it is exceedingly questionable whether pelvic disease *per se* ever results in actual insanity. The question of operative interference in these ill-defined cases of so-called "reflex insanity" is one which has been freely discussed both by surgeons and alienists of this country and Europe.

After a careful review of the literature of the subject and an analysis of the cases operated on and the results obtained, I think I am safe in saying that the consensus of opinion is decidedly against operative interference when the neurosis is the only indication for operation. And I must confess that my own experience in cases of this character has developed nothing to lead me to a different conclusion.

Greig Smith, in discussing the question of operation in cases of

* Read at the June meeting of the Kentucky State Medical Society, 1894. For discussion see page 230.

insanity, says: "The proposal of Goodell to remove the ovaries from all female lunatics who have abnormal sexual propensities can not be regarded seriously, any more than we should regard castration under similar circumstances in the male. Certain cases of mania, in which the attacks come on solely or chiefly at the periods and in which the sexual element strongly predominates, might be properly treated by removal of the appendages. In puerperal mania, particularly if the disease has recurred after a second confinement, the removal of a portion of the tubes to prevent future pregnancy, rather than complete removal of the appendages, is indicated." In this day of conservatism, with the knowledge we have of the symptoms and pathology of pelvic disease, the indications for an operation in a given case are to be based on the local diseased condition of the organs and the symptoms resulting therefrom, and not from any supposed reflex symptoms. I hold that no surgeon has a right to remove the uterine appendages from a female lunatic unless there is present a pathological condition which would warrant an operation in mental health.

There is equally as great a proportion of insane women who suffer from pelvic disease as there is among a like number of sane females, and I see no reason why this unfortunate class, when their condition demands it, should not be entitled to the same relief afforded by operative interference as their sane sisters; and I am glad to say that the profession is rapidly coming to an appreciation of the necessity for such work among the insane. Dr. George H. Rohe, of the Maryland Hospital, and Dr. Manton and Dr. Alice Bennett have all done excellent work of this character in the institutions over which they so ably preside.

The time has come when work of this kind can no longer be neglected in our own asylums, and for asylum superintendents and asylum physicians to say that the indications for both major and minor gynecological surgery are not present in their insane patients, just as they are among the sane patients of other hospitals, is to admit that they neglect to look for them or fail to recognize them; and in this they put themselves in the same category with the "country doctor" who says that he has delivered thousands of women and never had a lacerated perineum. From my own observation at Central Kentucky Asylum my opinion is that examination will show that fully twenty-five per cent of the female population of our State institutions suffer from some form of pelvic disease.

This being the case, it is just as scientific to urge that we neglect or allow to run their course our cases of pneumonia, bronchitis, and other medical diseases, as it is to allow these equally important surgical troubles to go without treatment; and while I admit that conservatism should be our guide in all operations of this character, it is better to err on the operative than on the non-operative side of the question. In the work I have done at Central Asylum I have been fortunate in having the hearty support of our able superintendent, Dr. H. K. Pusey, and the Board of Commissioners of the institution, five of which Board are prominent surgeons and members of this Society. In all the cases here reported the indications for operation have been the disease and not the symptoms, except in Case No. 4, one of nymphomania, which I shall describe at length. Case No. 3, while it can not be classed as a pelvic disease, is of interest, and I have included it in this report.

Strict asepsis has been aimed at in each operation. The patients were all given a week's preparation, which consisted of a careful regulation of diet and two warm baths daily, the abdomen being carefully scrubbed at each bathing with soap and brush. The intestinal canal was thoroughly washed out with salines prior to operation. All sponges, instruments, and dressings used were carefully sterilized by heat; silk was used for pedicles, and silk-worm gut for closing abdominal wounds. Irrigation and drainage were used in one case only.

CASE 1. Josephine H., age thirty-four, single, was committed to Central Asylum January 6, 1886. History of case from date of admission to December 10, 1891, is without interest. Diagnosis, chronic delusional insanity. On December 10, 1891, she was suddenly seized with an attack of catalepsy, in which condition she has remained almost constantly since. On January 15, 1894, in the presence of the house staff, an anesthetic was administered, which resulted in complete muscular relaxation as she came under its influence; as soon as the anesthetic was withdrawn the muscular rigidity gradually returned. She was a chronic sufferer from profuse and uncontrollable metrorrhagia, and as she was growing daily weaker from the constant loss of blood removal of the appendages was decided upon. On the 8th day of May, 1894, I removed both ovaries and tubes; ovaries were found of the chronic cystic type. Patient went on the table in a cataleptic condition, and although ether was administered there was at no time complete muscular relaxation, the abdominal muscles remaining partially

rigid during the entire operation. Patient made an uninterrupted recovery, and has had no hemorrhage since the operation, but is still in a profound cataleptic state. I shall shortly report this very interesting and unusual case in detail.

CASE 2. Henrietta K., German, age forty-two, single, was admitted to the Asylum September 20, 1880. Diagnosis, chronic delusional insanity. The records of her case show that she has for years suffered from metrorrhagia, and within the last two years has been constantly flooding. On examination I found the uterus enormously enlarged, and through the abdominal walls the nodulous fibroid growth could be distinctly felt. Supra-vaginal hysterectomy was decided upon. On May 18th, assisted by the house staff, Dr. J. W. Guest, and Dr. C. C. Godshaw, of Louisville, the latter being her family physician, and Dr. Arch Dixon, jr., of Henderson, I opened the abdomen and removed the enlarged uterus and appendages. There was a cyst of the left ovary as large as a hen's egg. There were no marked adhesions, and the various steps of the operation were accomplished without difficulty. In stripping the bladder from the uterus to adjust the neoud I was so unfortunate as to tear the viscus to the extent of half an inch. This was carefully sutured with silk. The abdominal cavity was copiously irrigated with hot sterilized water until the water came away clear. A glass drainage-tube was placed in Douglas' pouch, and the abdominal wound closed. On account of the bladder wound, a soft catheter was inserted and tied so as to retain it in the bladder. The patient was put to bed with a pulse at 96. She reacted nicely, there being comparatively no shock. The drainage-tube was removed in forty-eight hours. She had suffered no pain, and required no narcotic. Her pulse was never above 96, and she has had no rise of temperature. The stump has come away, and I think I can safely say that she is practically well, this being the twentieth day after operation.

CASE 3. Mary S., age thirty-six, admitted to the Asylum July 9, 1891. History of case from date of admission to date of operation is without interest. On February 12, 1894, she was seized with violent vomiting, and complained of severe colicky pains in the abdomen. On examination of the abdomen I discovered a tumor freely movable, somewhat larger than a large orange, situated just under the umbilicus. The case was afterward seen by Drs. H. H. Grant, Wathen, Satterwhite, Dugan, and Dixon; they all advised exploratory incision. On March 10th I opened the abdomen and removed the growth, which

proved to be quite a good-sized cyst of the mesentery. Patient made an uninterrupted recovery, and is now in excellent physical health.

CASE 4. Clara M., single, age twenty-six, was admitted to Central Asylum May 4, 1891. She was a woman of unusual intelligence and well educated; at the age sixteen she began to masturbate and show erotic symptoms. In spite of careful watching by her family she would solicit intercourse, and twice became pregnant; contracted syphilis, and as a last resort was sent to the Asylum. On admission her condition was pitiable; she was pale, anemic, had frequent attacks of hysterо-epilepsy. She masturbated incessantly. The case was of such a desperate and loathsome character, that I suggested the removal of her appendages as an experiment, thinking perhaps it might benefit her. On the 8th day of August, 1893, I operated, removing both ovaries and tubes. Tubes and ovaries were normal. She recovered rapidly from the operation, but instead of being benefited by it, I candidly believe it aggravated her condition. She continued to practice masturbation until her death, which occurred January 7, 1894, from pneumonia, six months after operation.

LAKELAND, KY.

Reports of Societies.

KENTUCKY STATE MEDICAL SOCIETY.

Thirty-ninth Annual Meeting of the Kentucky State Medical Society, held at Shelbyville, Kentucky, June 6, 7, and 8, 1894.

[CONTINUED FROM PAGE 191.]

Dr. W. L. Rodman, of Louisville, reported some miscellaneous surgical cases: (1) Pneumonotomy; (2) Barton's Operation for Ankylosis of Knee in Bad Position; (3) Resection of Shoulder. He also exhibited patients showing the results of his operations.

These cases were discussed by Dr. L. G. Contri, Dr. Cartledge, Dr. Carpenter, Dr. Roberts, and in closing by the essayist.

Dr. Rodman said:

In lieu of reading a paper I shall occupy my time in presenting several clinical cases, the first one being a pneumonotomy.

1. Edward H., aged twenty-eight, fell a distance of a hundred or more feet into the Ohio River with a span of the new bridge at Louisville. He

sustained a fracture of several ribs on the left side, the sixth penetrating the lung. A violent septic pneumonia followed, attended with high fever, frequent pulse, and great dyspnea. This pneumonia was followed by gangrene of the lung. Though in a condition of profound sepsis, his life being almost despaired of, we, at the urgent instance of his father, resected six inches of the sixth rib, and, following the scar in the lung as a guide, opened the abscess cavity. There was no fluid in the pleural cavity. The abscess cavity was packed with iodoform gauze. The contents of the abscess were dark prune juice in color, and as offensive as possible. It was typical gangrene. Although the patient almost died upon table from shock, he rallied well and his improvement was rapid. You now see that he is in robust health. He will now undress and show you his side.

2. Modified Barton's Operation for Ankylosis of Knee in Bad Position. Unfortunately the patient could not attend this meeting, but I pass around a number of photographs, taken before and after operation, which will give you a very correct idea as to the deformity and result. No case could have been followed by a more successful result. Only to-day Dr. Contri, who lives in Bedford, the home of my patient, and who knew the young man for years before he was operated upon, tells me that he is now at work upon a farm and makes as good a hand as any of his co-laborers. I removed the patella and a large V-shaped portion from the lower end of the femur, cut all the contracted tendons, and brought the limb down to a nearly straight position. To maintain this position a plaster dressing and weight were used. Firm union had taken place in ten weeks. I pass around the patella and section of femur.

3. Resection of Shoulder.

The case which I now present had osteo-myelitis, resulting in necrosis of upper end of humerus with great thickening and softening of the entire bone. I resected the upper four inches of the bone and trephined just above the musculo-spinal nerve in the upper part of arm, below it in the lower third of the bone. The medullary canal was drained by a long strip of iodoform gauze passing from the trephine opening above to the one below, and tied so as to prevent slipping. The capsule of the shoulder-joint contained at least a half pint of pus. The bone was soft and greatly thickened throughout. A forceps could be pushed through it. Although amputation at the shoulder-joint was advised by three excellent surgeons, we preferred an attempt to save his right arm. It was accomplished by eighteen months of patient work. He now has, as you will see, a most useful arm.

Dr. Contri said he was personally acquainted with the patient (case 2) referred to and operated on by Dr. Rodman, and no one could recognize him as being the same man who had seen him before the operation. He considered the operation an admirable success.

DISCUSSION.

Dr. A. M. Cartledge, Louisville: Dr. Rodman is to be congratulated on the results of the cases he has exhibited before the Society to-day. They were all tough cases, because they represented a bad class of surgical diseases.

It would seem that thoracic surgery of the traumatic kind is in its infancy. While the pleural cavity is liable to inflammatory and purulent conditions, we have in the past hesitated to attack septic lesions occurring in the lung tissue proper. So this case is an extremely instructive one. Here we have a man who receives an injury, a fractured rib; this rib penetrates the lung and almost immediately sets up a septic condition therein. We have a condition present that places us to every disadvantage so far as drainage is concerned, and which must in the very nature of things terminate in death if we do not resort to surgical interference.

While cases of gangrene of the lung occasionally get well, it is so rarely that every practitioner must see the disadvantage of not resorting to operative interference. The history of these cases heretofore has been that they have been left to nature. It is only two or three months since Dr. Rodman operated upon this gentleman. I saw the report of a case of resection of the rib in one of our foreign journals not long since, with an extensive comment made upon a few cases subjected to such treatment as was employed in the case reported by Dr. Rodman, and operative interference was advised in future cases. It seems to me the surgery of these cases is plain, and the results in a large proportion of them justify the operation.

As to stitching the visceral pleura to the parietal pleura in order to cut off sepsis, this surgery is more talked about than it is performed. Not long since I heard a gentleman say how he would attack this part of the body. Theoretically it seems easy enough to accomplish, but the practical surgeon who has had more or less experience in thoracic surgery knows that it is very much easier to talk than to perform operations which endanger the lives of patients in this way. It seems to me, if the question of pleuritic infection was at stake, it is better to run the chances of making a low point of drainage in the dependent part of the pleural sac and effect drainage in this manner.

Dr. J. G. Carpenter, Stanford: We are approaching the truth in surgery. I am surprised that thoracic surgery has remained dormant so long. The most beautiful results in print are from abdominal surgery and the surgery of the kidney. This is equally true of thoracic surgery. I congratulate Dr. Rodman upon his success. I have seen two cases in which the operation of pneumonotomy and drainage of an abscess of the lung was a great success.

In regard to bone surgery, I think we had better do a resection, as the doctor did in his case, and give the patient the chance to have the formation of new bone and a useful arm rather than to amputate it.

I have seen two patients with similar operations to those reported, one from a gunshot wound and the other from an abscess of the bone in which resection was done. After the recovery of the complete use of the arm the diseased arm became the stronger one, and the patient, a right-handed man, had very little use of the left arm.

Dr. W. O. Roberts, Louisville: I had the pleasure of witnessing the operation done by Dr. Rodman in one of his cases, and I must congratulate him upon the successful result. I thought I understood him to say that under the circumstances it would have been better to have done an open tenotomy instead of a subcutaneous one. In such cases as he has reported I always do an open tenotomy, and I believe that where it is done under strict aseptic precautions the results are better than by the subcutaneous method.

The doctor is to be congratulated upon the perfect results which he has obtained in all these cases.

Dr. W. L. Rodman (closing the discussion): I am glad Dr. Cartledge called attention to the gauze packing in one of my cases. I will say that the gauze was removed at the end of forty-eight hours, and then reapplied for about the same length of time until the cavity seemed to have healed from the bottom. I fully agree with Dr. Cartledge that I would rather in any case run the chance of infecting the pleural cavity by draining it adequately than to attempt such impossible surgery as suturing the visceral to the parietal layer of the pleura with the lung moving up and down all the time.

I agree with Dr. Roberts that an open tenotomy is just as satisfactory as the subcutaneous method in some cases. The only reason for abandoning the old operation of tenotomy for the subcutaneous method was to avoid suppuration. Now we do not have suppuration in wounds, and it is better in many instances to do an open tenotomy, because with it we see what we cut. Subcutaneous surgery must to a great extent be surgery done in the dark.

Dr. C. C. Lewis was appointed as chairman of the committee on place of meeting.

Dr. Arch Dixon, of Henderson, read a paper entitled "A Case of Vaginal Hysterectomy." [See p. 209.]

Discussed by Drs. W. H. Wathen, Shirley, Carpenter, R. B. Gilbert, and in closing by the essayist.

DISCUSSION.

Dr. W. H. Wathen, Louisville: I do not think the operation ought to be done if there is any fixation of the uterus caused by an extension of the malignant disease to adjacent structures. If the malignant disease has passed out of the uterus, is in contact with the broad ligament or with the

bladder and connective tissue and peritoneum, and the uterus encroaching upon Douglas' pouch in anywise so as to fix the uterus, then an operation ought not to be performed, for the reason that it is far more dangerous in its results than where the fixation does not exist, because if the patient recovers from the immediate effects of the operation, necessarily the cancerous infiltration in the tissues will rapidly cause a recurrence of the disease, and there will be no prolongation of life. I have never operated upon a patient where there was cancerous infiltration into the tissues around the uterus or any cancerous condition of the pelvic glands, and while I do not condemn others for doing so, I have never given my consent to this operation.

As regards the enucleation of the uterus without the ligation of the uterine arteries, it has been frequently done, and in many instances it may be done by careful enucleation without serious hemorrhage. You may, however, have hemorrhage in this enucleation from small vessels that will require torsion or the application of a small ligature or hemostatic. This operation has been done quite often by French surgeons. You are probably all aware of the fact that the French surgeons are great people to do vaginal hysterectomy. Not only in malignant disease do they always do the vaginal method, but in fibroid diseases as well. Operations performed in this country and in England are generally by the supra-vaginal method. I met in Washington City not long since with a distinguished French surgeon, who was surprised to find that surgeons performed supra-vaginal hysterectomy instead of vaginal. By the supra-vaginal method with a large tumor you may sometimes by careful manipulation enucleate the tumor, take it away entirely without ligating the uterine or spermatic arteries, as you may go on hugging the uterus closely and deeply, pushing the vessels out of the way in the connective tissue. While this operation has been done frequently by the French, it is something that requires very careful manipulation, and it is not a method that ought to be generally practiced; in fact, there is no use in practicing any of the methods for cancer at all here. In those cases where the uterus is not involved in cancerous disease, where the organ is removed for some neurotic trouble, as is now the custom of many surgeons, you may enucleate the uterus and leave the peritoneum intact. If you take the uterus away, remove the ovaries and tubes also if you want to get good results.

Dr. I. A. Shirley, Winchester: Just when to do vaginal hysterectomy in cancer of the uterus to obtain the best results seems to be an unsettled question even to this day among gynecologists. It is true they tell us that the "golden moment" is when the uterus is movable and the disease is confined to that organ; but that the extent of the invasion can not always be told before operation is illustrated by a case recently seen.

A most excellent lady, aged thirty-seven, the mother of six children, was thought to be a good case for total extirpation, as but a portion of the cervix only seemed to be involved, and the uterus was quite movable. She

was sent to a distinguished, experienced operator, who confirmed the diagnosis and requested a friend to witness what he predicted would be an ideal case for entire removal. He, however, found such invasion into the cellular tissue anteriorly as to render total extirpation impossible without endangering the bladder. The operation, therefore, was abandoned after removing one and one half inches of the anterior cervical lip and stitching the vagina to the cut surface. She was sent home in due time doomed to recurrence and a speedy death. Within three or four months she became suspicious of pregnancy, but the operator wrote that it was impossible, that the symptoms were the result of the invasion of the corpus. When I informed him of the unmistakable evidences of pregnancy, he replied that nothing short of a "cesarean" or a "Porro" could possibly deliver her. I was called by her physician, ten miles away, to come prepared for any thing. I went, accompanied by two professional friends. She had been in labor for ten or twelve hours. We found the os dilated to about the size of a silver dollar, the posterior half of which was free, the anterior half composed of an unyielding, indurated mass encroaching closely upon the bladder. It was the unanimous opinion that after incising the unyielding portion delivery could be accomplished. After anesthesia and the introduction of a catheter, it was feared incision of the mass would wound the bladder, and this operation was consequently abandoned. She was delivered, however, with but little delay and trouble with high forceps, after slight digital dilatation, of an average size, living girl baby. A profuse hemorrhage from numerous lacerations of the indurated tissue was controlled by a gauze tamponade of uterus and vagina. There can be no question of the trouble being malignant, in my judgment, supported by that of a competent gynecologist. If extirpation could have been accomplished when attempted a year ago, would life have been prolonged, to say nothing of the blasting of the pleasures of maternity? It is certainly very interesting as teaching the uncertainty of the extent of invasion, and on account of pregnancy and delivery of a cancerous uterus so far advanced as to prohibit vaginal hysterectomy.

Dr. J. G. Carpenter, Stanford: When a woman about the age of forty-five has a leucorrhea or a hemorrhage continuously from the uterus and the womb is enlarged beyond its natural length and diameter, it is suspicious and highly indicative of cancer. Even the microscope itself fails at times to detect cancer cell from the curettings of the womb for a specimen. It would be better surgery to remove the suspicious uterus than to let the woman go on to develop cancer and to die. When a woman at forty-five years of age has fibroids or fibro-cystic tumors, they are prone to undergo sarcomatous degeneration and exhaust the patient by hemorrhage, sepsis, pressure, and other complications. At that period it would be conservative surgery to remove the uterus rather than allow it to remain and the patient risk all the chances of constitutional infection.

Dr. Arch Dixon, Henderson: I fully agree with Dr. Wathen in regard to what he said about operable and inoperable cases. This case, as I stated

in my paper, was almost an inoperable one, and a statement to that effect was made to the patient, but she insisted upon an operation being done. Through the rectum the uterus could be moved, but as I said, in doing the operation the uterus was so fixed that it could not be pulled down at all, and perhaps, according to Dr. Wathen's idea, it might have been considered an inoperable case; but under the circumstances, and at the request of the patient herself, I did the operation.

In regard to the statement that enucleation of the uterus is done quite frequently, I think Dr. Wathen is mistaken. He says a great many of these operations have been done by French operators. If they have, I have never heard of them. The first operation of this kind was done by a French surgeon years ago, in which he attempted to enucleate the uterus. Instead of doing that he dissected out and left part of the uterine tissue attached to adjacent parts. Dr. Pratt's operation (of Chicago), done six or eight months ago, was followed by the operation of Dr. Reyburn, and later by an operation done by Lauphear, of Kansas City, in which the uterine arteries were tied off. If there has been any such operation done by French surgeons, I have failed to notice it, notwithstanding Dr. Wathen says they have been frequently done and reported. If he can show me the literature on the subject previous to the time quoted by Dr. Pratt, I would be obliged to him.

In the Medical News the whole subject is discussed by Mundé, of New York, in which he makes similar statements to my own.

I was interested in this sort of case. By simply making an incision anteriorly and posteriorly, or a circular incision around the cervix, the uterus, by the finger of the operator, is peeled off from the peritoneal envelope and taken out without any hemorrhage. This is a great thing to do, and it is a good thing for the patient as well as for the surgeon. It prevents shock, hemorrhage, and saves time, and time is a great thing when a patient is under an anesthetic.

In regard to the case reported by Dr. Shirley, the surgeon called in in that case ought to have made a vaginal hysterectomy. It seems to me the case demanded it. Some years ago we had a case in Henderson in which I diagnosed carcinoma of the cervix. In consultation with another physician it was decided to call Dr. Thad. Reamy, of Cincinnati, to see the case. Dr. Reamy came down and confirmed my diagnosis. The uterus was perfectly movable; the vaginal walls were not involved, yet for some some reason totally unexplainable he did not operate. To my mind it was a case which demanded operation. It was a case much easier of operation than the one reported, and it seems to me he ought to have operated. However, he was the best judge of that, much better perhaps than we were.

My statements are with reference to enucleation of the uterus only.

Dr. Wm. Cheatham, of Louisville, read a paper on "Cysticercus of the Eye, with a Case." [See p. 215.]

Discussed by Drs. Ray, Carpenter, and in closing by the essayist.

DISCUSSION.

Dr. J. Morrison Ray, Louisville: As I have never seen a case of cysticercus of the eye I am not in a position to say much about it. We see many different changes about the fundus of the eye that we are not able always to explain, and as cysticercus is such an exceedingly rare disease it seems to me that the symptoms described should be accounted for by the result of some inflammatory disease of the vitreous or of lymph exudation hanging from the retina. In fact, it is said that cysticercus does not occur except in those who eat raw meat. This explains why cysticercus is so common in certain parts of Germany, and it had a great deal to do with the exclusion of American pork for a long time from Germany. It seems to me, as the eye has not been enucleated, and the specimen has not been examined to prove absolutely that the condition seen inside the eye was cysticercus, and as cysticercus is so rare, the symptoms can be accounted for by the underlying fact of there having been in the eye some inflammatory disease or some lymph formation about the vitreous or probably in the retina.

Dr. J. G. Carpenter, Standford: While I do not doubt the diagnosis in this case, I would like to have the doctor give us the differential diagnosis between cysticercus in the retina and a tumor of the retina. I saw a similar case to the one reported at the Manhattan Ophthalmic Hospital diagnosed by experts.

Dr. Cheatham (closing the discussion): Dr. Ray states that a positive diagnosis in this case can hardly be made without enucleation and subsequent examination of the specimen; but so far as the symptoms of cysticercus of the retina are concerned this case fills the bill. After examining the case some time I got the rhythmical motion which should be gotten in cases of cysticercus, and it was as perfect as could be.

The question sprung by Dr. Carpenter is one that is difficult to answer. We often have beginning tumors of the retina where it is impossible to make a diagnosis between them and a detached retina. I never saw a case of detached retina so pedunculated as this was. So far as the diagnosis can be made without enucleation, I am firmly convinced it was a case of cysticercus.

Dr. C. B. Schoolfield, of Dayton, read a paper on "Leprosy."* No discussion.

Dr. Joseph M. Mathews, of Louisville, contributed a paper on "The Larva (*Echinococcus* of *Tenia*) *Echinococcus*." Report of a Case.* No discussion.

The next paper in order was by Dr. L. S. McMurtry, of Louisville, entitled "Fifty-one Consecutive Abdominal Sections, with Remarks."

*These papers will appear in the *American Practitioner and News*.

Dr. McMurtry asked that he be permitted to read his paper by title and have it published in the annual volume of Transactions, and that Dr. John Young Brown be allotted his time.

Dr. John Young Brown, of Lakeland, then read a paper on "Pelvic Disease and its Relationship to Insanity in Women." [See p. 218.]

Discussed by Drs. McMurtry, Carpenter, Cartledge, Cecil, Wathen, Schoolfield, and in closing by the essayist.

DISCUSSION.

Dr. L. S. McMurtry, Louisville: The writer makes a statement that I have no doubt will be borne out by the testimony of other careful observers, namely, that one fourth of all the insane women in our asylums are subjects of pelvic disease. The essayist has done full justice to the work that has been done in this country by Prof. Rohé, of Baltimore, Dr. Manton, of Detroit, and Dr. Bennett, of Norristown, Pa. The point to be made and which Dr. Brown plants himself upon is one that the facts will bear out, namely, that there are a large number of women in our insane asylums that can be rescued and restored to health by legitimate surgery; at the same time operations for functional neuroses, such as hystero-epilepsy, and all those various forms of functional disturbances of the nervous system, are illegitimate, and nothing will come from them, as has been demonstrated. One of the greatest sources of discredit thrown upon pelvic surgery has come from operating upon cases of functional neuroses. There are a large number of cases in our insane asylums that deserve to be treated by operative procedures, just the same as sane women are operated on and are relieved.

The essayist has reported a most creditable case of abdominal hysterectomy with a beautiful result, and I want to say a word in confirmation of the position taken. It is a well-known fact to all who are familiar with these cases that fibroid tumors of the uterus are known to produce insanity. Since I have been standing here a gentleman has come into the room with whom I was associated in the case of a lady for whom I did an abdominal hysterectomy for fibroid tumor, and who before operation and during her convalescence was insane with a deceptive form of insanity. A certain proportion of women with fibroid tumors of the uterus are insane, and they can be cured by surgery.

Dr. J. G. Carpenter, Standford: I wish to indorse the paper of Dr. Brown and the work he has done, also the work that has been well done in other asylums in this country. We have insanity following diseases of the eye, nose, throat, and ear, and the curing of these diseases will cure the insanity. We have even insanity resulting from very bad strictures of the urethra. There are women in our asylums with diseased appendages, who, if operated upon, would get well.

Dr. Alice Bennett, of the Norristown Asylum, has operated upon these patients with most satisfactory results. I know of four women to-day upon

whom she has operated who are at home perfectly sane with their families. One patient, who was a violent epileptic, is now rendered harmless. One of her cases died of a purulent peritonitis. I hope the good work will go on, as surgeons in removing the diseased appendages will give these poor women their only chance for health and a sound mind again.

Dr. A. M. Cartledge, Louisville: I rise to congratulate the author upon the excellent manner in which he has dealt with this very delicate subject. First of all, I think the strong point he has made in this paper (and one I hope he will abide by) is this, that in following up this subject and dealing with this class of cases there must be obvious disease before these patients are subjected to an operation. With this to go by, there is no reason that I know of why these unfortunates should not receive the same benefits from surgery that their more fortunate sisters do who are suffering.

Another thing, the doctor should be congratulated upon the most excellent results he has obtained. I confess that in doing abdominal surgery, that I am very much afraid to operate on patients of this class, and I believe I am borne out in this fear by the experience of other gentlemen who have done many abdominal sections among the insane. It is an extremely unfortunate class of patients to operate upon. As a rule they do badly, which is one more argument in favor of the rule that they should be operated upon only for obvious disease.

I am fully in accord with the view taken by Dr. McMurtry, that abdominal surgery has been brought into disrepute by operations done on neurotic cases where there was not clear evidence of disease.

Dr. John G. Cecil: It has been generally conceded of late years that the operation of laparotomy for the removal of the appendages for neuroses has been unadvisable and followed by poor results. It strikes me the best argument that could be adduced in favor of the position taken by Dr. Brown would be a close analysis of his cases. In the consideration of the first case, the one in which the ovaries and tubes were removed for menorrhagia, with a history of chronic delusions preceding, the doctor did not by his operation prove that these delusions were the result of intra-pelvic disease, as the history goes to show the delusions continued; yet the poor woman was relieved of a disease which in all probability would have terminated her life.

The last case reported by him, in which the ovaries and tubes were not diseased, is a strong argument in favor of non-operative procedures in strictly neurotic patients.

Dr. Wm. H. Wathen, Louisville: There can be but little dispute that these women should be treated just as other women who are treated for pelvic disease and are benefited. They are so insane as to bring about a condition from which they can not be benefited. If they can be controlled and kept in bed and managed as other women, they ought to be operated on for obvious pelvic disease the same as sane women, nothing more, nothing less. It has been clearly demonstrated that the operation of removal of the uterine appendages for nymphomania has not been followed by good results. It may be, that if these operations were extended further

and the uterus removed, the results might be better. I doubt this, however, for the reason that it is probable in most of these cases there is a cerebral lesion controlling the patient that would not be relieved or even modified by the removal of both the uterus and the appendages.

Dr. Arch Dixon, Henderson: I wish to offer my congratulations to Dr. Brown for his exceedingly valuable contribution, and I wish to say that he is a pioneer in this work among these unfortunate women in our asylums. If there has been any such work done in the asylums of Kentucky before, it has never been reported. Dr. Brown differs in his conclusions from Dr. Rohé, and I think with good cause. It is a field that needs cultivating, and with such men as Dr. Brown beginning this work nothing but good can result from it.

Dr. C. B. Schoolfield, Dayton: I believe these women should be given the same opportunity for recovery from pelvic disease as their more fortunate sisters. It is a very critical question for a man to determine in these nervous diseases whether he is justified or not in removing the appendages. The results, as a rule, have been rather unsatisfactory, that is, statistics show that in these neurotic cases removal of the appendages has not been followed by favorable results, but in those cases where there is obvious disease of the ovaries, where it is not a functional disease, as Dr. McMurtry has said, and the symptoms point to the appendages as the origin of the trouble, then I think we are justified in removing them, and I am glad the doctor has taken the ground he has in the paper in urging the removal of the appendages in these cases.

The reason I rise to speak in reference to this matter is because I had a case about six months ago in point. A woman, who had periodic mania of a suicidal character, cut her throat about the first of July last, and in one month from that when she menstruated again she ran away. Her clothes were found torn, and it was supposed that she had gotten into a reservoir. A third time she ran away. She was brought to me in July last, and I found the left ovary prolapsed, adherent, and evidently diseased. The fact that there was no neurotic history in the family led me to believe that the origin of the trouble was pelvic. I wrote to Dr. Richardson, of Columbus, about the case, and he recommended removal of the appendages. I had no means of obtaining any confirmation in this matter from any one of large experience. But on the first day of October I removed the ovaries, and at the end of three weeks the patient was well. Since that time she has showed no symptoms of insanity whatever, is able to attend to her work, and does her own washing. Such results are unusual in these cases of neurotic trouble; but I think the results are all good where we have unmistakable evidence of pelvic disease and operate for its removal.

Dr. Brown was called upon to close the discussion, but said he had nothing further to say, except to thank the Society for the generous manner in which they had discussed his paper.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

London Bakehouses ; Death of Professor Von Helmholtz ; A New Crematorium ; French Chemists ; New Work by Florence Nightingale ; Poisoning by Strychnia—Recovery ; Strange Suicide ; Cycling and Women ; A Novel Wedding.

Dr. Orr has made some remarks on the alleged insanitary condition of bakehouses in London. He thinks that some of the reports lately published would make the public believe that London bakehouses are sinks of sanitary iniquities in which all kinds of horrors are allowed to pass unnoticed. A cry for fresh and more stringent legislation has been raised in regard to these places, but so far as Dr. Orr has been able to judge there is a great deal of the alarmist element in the outcry. Bakehouses, he considers, must always be in the nature of things to a certain extent unhealthy. If, however, there are any insanitary conditions present which are capable of removal, ample power is afforded under the Public Health Act and the by-laws framed by the County Council without the necessity of further legislation.

It is pleasant to find that at least one department of trade is in an extremely satisfactory condition. Not long ago an artificial leg-maker informed the judge of the Westminster County Court that business in that line is at present too depressed to enable him to pay his debts except by small installments. Another of the trade has written to the daily papers contradicting the statement about depression, and says for fifty years there were never so many orders as at present from the metropolitan hospitals and the principal railway companies.

The news of the death of Prof. Hermann Von Helmholtz caused a sense of deep loss to the world of science. The eminent physiologist and physicist had recently completed his seventy-third year. It is curious that in Germany, where specialism reigns supreme in every thing, it should be so common to meet men distinguished in different and widely separated departments of research. Helmholtz was a physician, a professor of anatomy and physiology, having held appointments at Berlin and Heidelberg, and continued such to the end, and yet his fame will chiefly rest on his inquiries in physics and mathematics, which he even applied to physiological phenomena. Helmholtz will always be held in reverence in connection with the great law of the conservation of energy. It is generally admitted that

this doctrine and that of evolution are unquestionably the most important because the most general of the scientific theories of the nineteenth century.

Recently several cases of painful orchitis have been successfully treated by means of external application of guaiacol. The ointment used is composed of vaseline, 30 parts, and guaiacol, 5 parts. Two applications are made daily, and a triple compress was kept in place upon the scrotum by a T bandage. Although the effects are not as rapid as when pure guaiacol is used they are entirely satisfactory. The pain rapidly disappears, the temperature falls, and sleep becomes possible. These good results are thought to be due to the local action exercised upon the cutaneous nerve terminations and the reflex action upon the cord and testicle rather than by the absorption of the drug. Pure guaiacol is frequently found to cause considerable local irritation, hence the ointment is preferred.

The Lord Mayor of Liverpool has laid the foundation stone of a crematorium to be situated in close proximity to one of the large cemeteries. The building is to be similar in size to the Woking crematorium. The principal object of the promoters has been to avoid any appearance of secrecy in the disposal of the remains. A raised gallery will provide mourners with an opportunity of witnessing the placing of the coffin in the furnace, and if desired of witnessing the withdrawal of the ashes, which will then be placed in a columbarium. This is a well-lighted crypt, capable of containing nearly 2,000 urns. As an alternative the ashes will be buried.

It appears that French chemists carry on their business under very different conditions from those which regulate them in this country. They are only allowed to have one shop each, and are not permitted to work with unqualified persons. It is illegal for a medical man in conjunction with a chemist to give gratuitous advice and reap a benefit from the prescriptions. Pharmacies have the sole right of compounding and retailing medicines for human beings either for external or internal use. Medical men, resident in rural districts where there is no chemist, are allowed to dispense medicines, but if they visit a patient who lives near an established chemist they are not entitled to send the medicines. Secret medicines are illegal, and the formulæ of all special preparations have to be submitted to a board appointed by the State and approved of before being sold to the public. French pharmacies open generally at 7 A. M. and close at 10 P. M. all the year round, Sundays included. Their sales are confined strictly to drugs, chemicals, and mineral waters; it is considered unprofessional to sell toilet articles. The chief poisonous drugs are required by law to be kept in a locked cupboard, and the pharmacies are visited at least once a year by officers appointed for the purpose. All prescriptions have to be written in the mother tongue and not in Latin as with us.

Miss Florence Nightingale, the famous Crimean nurse, has published in pamphlet form the paper on Rural Hygiene which was read at the Leeds Conference of Women Workers last year. Miss Nightingale has for many

years given close attention to the condition of the cottage homes of England. She considers that, with an excellent health code and ample powers and no lack of machinery, the sanitary condition of rural England is a national disgrace, and that if the Housing of the Working Classes Act were enforced immediately and completely three fourths of the rural districts in England would be depopulated and hundreds of thousands of houseless poor would be thrown upon our hands, for such at least is the proportion of houses unfit for habitation in the rural districts.

From India it is reported that a Hindu woman swallowed ten grains of strychnia and recovered after treatment with permanganate of potassium, chloral, and bromide. The stomach was vigorously washed out with the permanganate and frequent injections of chloral and bromide *per rectum* were administered, 220 grains of chloral and 240 grains of bromide being used.

A strange suicide is chronicled from the north of London, where a young man occupied himself for a week preparing a potion with which to destroy himself. This ingenious would-be suicide purchased a quantity of fly papers which for one week he occupied himself in boiling with a view to extracting all the poisonous properties they were likely to contain.

Dr. Douglas Hogg recently requested, in the columns of a medical journal, the opinion of medical men as to whether cycling was healthy or injurious to women. He has received forty-eight answers to his question from distinguished English, French, and other physicians. Of these, thirty-six approve the exercise if practiced in moderation, three recommended it under certain conditions, while nine are totally opposed to cycling by women.

A marriage which excited local interest has taken place at Leeds. The bridegroom is eighty-two years of age and the bride has seen her seventy-third birthday. The bride was given away by a man nearly eighty years of age, and the bridesmaid was a widow of seventy.

LONDON, September, 1894.

THE University of Virginia has been especially unfortunate to lose two of her most distinguished professors, in the medical department, within the last few month. Dr. William Towles, who died last spring, was undoubtedly one of the best anatomists the University has ever had; and now the death of Dr. W. C. Dabney, which occurred last month at Charlottesville, leaves a breach in the faculty that will be hard to fill. Dr. Dabney was born in 1849, and was educated at the University of Virginia. He enjoyed the largest practice in Albermarle County until 1888, when he gave up active practice to accept the chair of Obstetrics and Medicine in the Medical Department of the University of Virginia. He was a great favorite with his pupils.

Abstracts and Selections.

SIGNIFICANCE AND MANAGEMENT OF PYREXIA.—The tendency of the discussion upon pyrexia at the recent meeting of the British Medical Association was to discourage the routine administration of antipyretic drugs. Such a line of practice was discountenanced by Dr. Hale White in his able address on various and cogent grounds, for example, that moderate pyrexia is not demonstrably harmful; that antipyretic treatment is purely symptomatic; that it is possible that pyrexia may be one of "the defensive mechanisms" of the body; and that the lowering of the temperature may give a false sense of security, rob us of a valuable aid to diagnosis, and possibly impair the patient's immunity from subsequent attacks of his malady. On the other hand, the discussion made it abundantly evident that hyperpyrexia is on an altogether different footing, the mortality being put at eighty-four per cent, and that in this condition the patient's sole chance of safety lies in the prompt and vigorous application of external cold. The whole subject of the heat mechanisms of the body is one of absorbing interest, and, while much is known regarding it, considerable obscurity still hangs over some of the most fundamental points. To summarize Dr. Hale White's views very briefly, we may say that heat is produced chiefly in the muscles, and this production is controlled by the corpora striata; heat is lost chiefly from the skin, and this loss is controlled by the vaso-motor and sweat centers of the central nervous system; the existence of thermogenetic centers in the cerebral cortex is probable but not certain, and the heat mechanisms are much affected by the quality of the circulating blood. On the other hand, we are still ignorant of the real significance of many varieties of pyrexia. Is the pyrexia that accompanies the presence of toxins in the blood the effect, directly or reflexly, of irritation or paralysis of the thermic mechanisms, or may it be regarded as nature's effort to rid herself of noxious material—may it be a "defensive mechanism"? Or, take the common case of a slight chill, followed by moderate pyrexia. It is evident that theoretically this might be explained by a diminished loss of heat from the skin, or by a reflex effect upon the corpora striata, or by a blood state, or possibly in other ways. While these questions remain unsettled it is evident that antipyresis as a definite line of treatment rests upon a very insecure basis. It was well pointed out by Dr. Hale White that some of the most striking effects of antipyretic drugs are now known to be due, not to their influence over the thermic mechanisms but to their specific action upon the cause of disease. Thus the influence of quinine upon ague long seemed to be a typical instance of successful antipyresis, but, thanks to the labors of Laveran, Marchiafava, Bignami, and others, we now know that it acts as a direct

poison to the plasmodium malarix. It seems highly probable that the remarkable influence of the salicin compounds upon rheumatic pyrexia will, in the course of time, receive a similar explanation.

While doubt thus hangs over many theoretical questions associated with pyrexia, appeal must be made to practical clinical experience. We take it that there is no evidence that the systematic use of pure antipyretic remedies, such as antifebrin or phenacetin, reduces the mortality, say, in typhoid fever or pneumonia; on the other hand, there is a vast body of evidence that the systematic use of external cold has a material influence over the mortality in typhoid fever. In the debate at Bristol Dr. Osler gave his emphatic opinion that the reduction thus effected was not less than three or four per cent. Whether the cold bath or cold sponging acts as an antipyretic, or by promoting the elimination of toxins, may be regarded as doubtful; but analogy is rather in favor of the latter view. The practical conclusion remains that in external cold we have an agent of real influence over the typhoid process. The influence of quinine over high temperature in typhoid fever has seemed to vary much in the experience of different observers. It is probable that this variation has been due to different methods of administering the drug. The evidence appears to be in favor of full doses of twenty, thirty, or forty grains given seven or eight hours before the period of maximum rise. Given in this way, decided benefit seems frequently to accrue.

The history of antipyresis in phthisis is rather a melancholy record. Again and again have remedies been received into favor only to sink into well-merited oblivion. There can be little doubt that the pyrexia of phthisis is toxic and due to the poison excreted by the bacilli. In such cases, to give antipyretic remedies which act by modifying the ordinary thermic mechanisms without exercising any antitoxic influence must, in most instances, be merely changing the hands of the clock, while the inner works remain unaffected. Antipyresis in phthisis must take the form either of nullifying the bacillary poison or of fortifying the organism against its effects. Creosote, guaiacol, iodoform, or carbolic acid may be tried with the former view; tonics, dietetic measures, and change of climate with the latter view. In neither case is the treatment correctly described as antipyretic.

Antipyretic treatment seems to achieve its principal triumphs in sun-stroke, and in some cases of hyperpyrexia; but in these cases cold water, both for promptness and efficiency, takes precedence of drugs.—*London Lancet*.

DANGERS OF THE LONG RECTAL TUBE.—It has long been a disputed question as to whether the long rectal tube can safely be passed into the sigmoid flexure. In this connection the opinion of Mr. Harrison Cripps, in a recent number of the *British Medical Journal*, is of interest.

In spite of the condemnation of the long rectal tube by Brodie, Treves, and many other eminent authorities, he still finds that in most cases of

obstruction or supposed obstruction the tube has been introduced. Fortunately these tubes are fairly soft, so that in a capacious rectum, when they impinge and are arrested about opposite the promontory of the sacrum, they simply coil up and do no harm. If stiffer ones are used the patient's life is placed in imminent risk. A patient at St. Bartholomew's Hospital was to be operated on for ruptured perineum. In order to increase the supposed efficacy of the injection, a quart of soap and water, with some ounces of oil, were injected by means of a long tube. The injection never returned. A few hours afterward, owing to the acute symptoms of the patient, Mr. Cripps assisted one of his colleagues in opening the abdomen. The soap and water and oil were found in the abdominal cavity, and a hole below a reduplicated fold in the upper part of the rectum. The patient died. He says that the idea that these tubes can be generally passed into and beyond the sigmoid flexure is a pure delusion, save in the rarest circumstances. As a means of diagnosis, or of treating stricture beyond the reach of the finger, tubes of any kind are absolutely useless. If a stricture is actually present it would be one hundred to one against the long tube or bougie entering it, for it would almost certainly catch in the *cul-de-sac* generally caused by the invagination of the stricture. If a stricture is not present, the arrest of the bougie by the sacral promontory leads to delusive diagnosis. Brodie, in his lecture, alludes to a case in which a worthy practitioner had spent over one hundred and fifty hours in dilating a supposed stricture situated high up. The treatment had extended over a period of one year. Brodie, who was present at the *post-mortem* examination, found there was no sign of a stricture, the bougie becoming arrested by a curve of the sacrum.—*Boston Medical and Surgical Journal*.

IS CYCLING HEALTHY?—It must be most annoying to the enthusiasts of the cycling community to read the public comments that are just now being made on their favorite exercise. The press all through the country is full of the question, "Is Cycling Healthy?" and of the answers that spring from it. We assume that those who, for the moment, are so interested and eloquent on the subject, have not read the moderate observations we, from time to time, have made upon it; if they had, there would not be the same agitation or the same string of contradiction. This is not a case in which it can be said that in a multitude of counsellors there is safety. It is a case where a few individuals looking on the whole of the facts with professional and unbiased mind can do the most good that can be expected. It has been our business to endeavor to master the problem in this form, and in the honest attempt so to do we have sometimes offended the ardent cyclist, and sometimes also have run the risk of offending his ardent opponent. The facts are that the offense comes out of duty and must be borne by ourselves and those sober-minded people who wish to see both sides of a matter that has to it two sides at least. There are three sets of opinions among those who have ridden, or do ride, the cycle as to the effect which

riding has on them individually. It is clear that there are some who can not ride; from the first the exercise does not suit them; from the first it wearies them in mind as well as in body. They try, often under disadvantageous circumstances, overwheeled with mental or bodily work, or suffering from some symptoms of disease, and not unnaturally these discover that what they supposed might be for their benefit is just the reverse; their nervous centers are shaken, their muscles are tired and strained, their heart is wearied; if they have gout or rheumatism the latent malady comes out; in a short time they show the bad effect of the exercise, and, not liking to say any thing by halves, and not believing they could have done any thing for which they are specially unfitted, they are severe in their criticism and condemn a general system on the ground of their own idiosyncrasy. On the other hand there are men and women of all ages who, entering the cycling fraternity, find a pleasure and a relief in it which are quite phenomenal, and, though it may not last, are sufficient to make them feel that they must hold by the new acquirement, patronize those who excel in it, praise its many and obvious advantages, and by imperceptible means become on their part warm and perhaps able, if not altogether sincere, supporters of it. Lastly, there is a third set to whom cycling comes as a business. For the sake of saving time, or of carrying loads, or other useful task, they train themselves into cycling labors and cycling habits—become, without offense, cycling animals—and find they can perform labors otherwise impossible with comparative immunity from injury. The evidence which men of science can alone accept lies between these three sources, the last probably affording the best; and the evidence is to the effect that, excluding those who are not fitted by constitution to ride at their own physical and mental expense, cycling is as safe as any other exercise if it be taken in a moderate and common-sense manner.—*London Lancet*.

GONORRHEAL PERITONITIS.—Chaput (*Bulletins de la Soc. Anat. de Paris*, March-April, 1894,) reports the case of a girl, aged seventeen, who had suffered from abdominal pains for a fortnight, and was admitted with all the symptoms of very acute peritonitis. Abdominal section was performed. A quantity of creamy yellowish pus was found in the pelvis; the entire intestine was congested. On raising the right fallopian tube it was found to be dilated. Its fimbriæ were deeply injected. On pressing the tube with his fingers, Chaput caused a drop of creamy yellowish pus, of the same appearance as that in the pelvis, to issue from the ostium. The same condition was detected in the left tube. In order to protect the peritoneum from the septic stumps of the tubes when the appendages were removed, Chaput left the ends of the ligature silks hanging out of the abdominal wound, and a strip of iodoform gauze was pressed into Douglas' pouch. The patient in a few days had obstruction from paralysis of the intestine. An artificial anus was made, but afforded no relief, and the patient died. No mechanical obstruction could be found; the violence of the peritonitis had caused paralysis of the intestine.—*British Medical Journal*.

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HOW IT IS DONE.

It is probable that hardly a week passes in the life of the average doctor that he is not solicited, directly or through innuendo, by some woman, married or unmarried, to play the rôle of the abortionist. Sometimes the woman is the unfortunate victim of illicit love, and makes a strong appeal to the sympathies of the doctor, whose knowledge is a power which might save her from disgrace, or perhaps a life of shame. Sometimes the solicitress is of the brazen *demi monde*; but more frequently, by far, it is a wife who has borne, in her opinion, children enough already, and desires to be relieved of the pains and sacrifices incident upon the bringing of a new child into the world.

Of course the duty of the physician in such cases is plain, and his decision can admit of no hesitation. His mission is to save life—not to destroy it; and feticide is murder, more "foul and more unnatural," if possible, than infanticide; but each alike is repulsive to the lover of fair play and of his kind, because of the innocence, inoffensiveness, and utter helplessness of the victim.

These women, getting no encouragement from reputable physicians, and never relaxing from their purpose, resort to many devices for making sure its accomplishment. The "professional" (!) abortionist is a great resource in most large cities; but his services can not be had at call in rural districts, nor can many of the implicated women afford to pay his exorbitant fee. And so a large percentage of these take the

various nostrums advertised regularly in the daily papers and sometimes in the religious ones also. If these fail (and they usually do) they try to trick the doctor by pretending to some female ailment in the hope that he will sound the womb and so accomplish innocently their wish.

Finally, when this hold gives way, they attempt the outrage upon themselves by introducing knitting-needles, bodkins, and other articles of domestic economy into their wombs. The dangers of such practices can not be overstated, and it is the duty of the doctor to warn, in no uncertain words, the weak abortio-maniacs who come within his purview of these dangers, and to lecture them upon the sin of such practices. For by them one life is jeopardized and another is destroyed, with spiritual and moral evils too great to be estimated by our narrow faculties.

The following, which we clip from the *Journal of the American Medical Association*, of the 22d ult., is in keeping with these reflections.

Dr. S. L. Jepson, of Wheeling, W. Va., writes :

Mrs. A., aged twenty-five years, mother of two children, last menstruated August 5-8. At 10 A. M., September 14th, thirty-seven days after last date, she introduced the closed end of a common wire hairpin into the cervix, in the effort to produce an abortion. It slipped from her fingers and disappeared beyond her reach. Eleven hours later I saw her, and no sign or symptom of local disturbance was present. My index finger, inserted as far as possible into the cervix, felt no foreign body. I concluded that the woman was so agitated during her criminal effort that the pin had dropped into the vagina, and afterward escaped; or, that she was lying to me in the hope of inducing me to explore the uterus in the search of a hairpin and to deliver her of a fetus instead. I therefore concluded to defer action, and instructed the woman to send for me if certain symptoms presented.

September 25th at 10 P. M., twelve days after the hairpin was said to have been lost, I was called again, and found that an abortion had occurred an hour before. This history was elicited: In the afternoon of each day since my former visit, a little bleeding had occurred, but none at other times. No pain had accompanied this. Bleeding was continuous on the 23d, 24th, and 25th. On the last day patient walked three-fourths of a mile to spend the day with a friend, and walked home in the evening. Bleeding was free during the afternoon, and at 7 P. M. pain set in for the first time. Two hours later the abortion occurred.

On examination I found the cervix just sufficiently open to admit the index finger. A portion of the ovum remained, and lying perpendicularly I found the hairpin, the open ends downward. After several failures I at last grasped both ends of the pin with a uterine dressing forceps, and removed the instrument of death. From the rounded end to the open extremities it measured two and a quarter inches. No damage to the uterus seemed to have resulted from a twelve days' presence of its unusual tenant, and the patient had an uneventful convalescence.

Biographical.

DOCTOR JERMAN BAKER, OF SHELBYVILLE, KY.

At the meeting of the State Medical Association at Shelbyville, in June, I had the pleasure of becoming acquainted with the veteran physician, Dr. Baker, of that city. It always affords me a great deal of pleasure to make the acquaintance of the old men in the profession.

The doctor is, perhaps, the oldest active practitioner now in the State, having been actively engaged in practice over sixty-four years. Notwithstanding his great age he still answers all calls, day or night, and rarely complains of fatigue. He is now in his eighty-sixth year of age.

The doctor was born in Cumberland County, Virginia, April 11, 1809. His father, Hon. Jerman Baker, was a prominent lawyer of Virginia, a member of the State Legislature, and under the old Constitution was a member of the State Executive Council.

His grandfather, Jerman Baker, was also one of the leading lawyers of the Old Dominion, to which State he emigrated from England in 1780.

His mother was Miss Bolling, second daughter of Col. Francis Epps, of Virginia, and sister of Hon. John W. Epps, son-in-law of Thomas Jefferson. She was also a niece of Mrs. Jefferson.

Dr. Baker received a classical education at Richmond, and at the age of eighteen began the study of medicine at the University of Virginia, under the tutelage of Dr. Robley Dunglison.

In 1829 he graduated at this institution, and spent the succeeding winter at Jefferson Medical College, Philadelphia.

In June, 1830, he commenced the practice of medicine in Davidson County, Tenn., where he was very successful for ten years. He then spent a couple of years in traveling; after which he moved to Kentucky in 1842, and settled in Shelby County, where he has continued to practice to the present time. For the last thirty-seven years he has resided in Shelbyville.

In 1834 the doctor married Miss Mary J. Read, daughter of Thomas J. and Fannie L. Read, of Nashville, Tenn. They have two living



DR. JERMAN BAKER.

children, Maude, the widow of Bainbridge Richardson, of Shelby County, and Lilly Belle, widow of Ormsby Gray, of Louisville.

The doctor is a member of the County Society, the State Medical Society, and the American Medical Association. He was president of the State Society in 1875. He was also elected first president of the Shelby County Medical Society.

He has been and is yet a devoted student of his profession, and an occasional contributor to medical literature.

Although the doctor has never been an extreme partisan, he has always been a consistent and firm supporter of the Democratic party, and for many years was chairman of the County Executive Committee. He is a member of the Episcopal Church, and is senior warden of St. James' parish.

Dr. Baker is a man of fine physique and attractive presence, although of modest demeanor. For his age he is wonderfully well preserved and quite active, and promises to live yet many years. He still does quite a large practice, and the poor regard him as their best friend in time of sickness.

I have always thought it proper to award due praise to men in the various walks of life who have faithfully and honorably devoted their lives to their callings, especially when advanced in years. It is common, as a rule, to wait and render our marks of respect and honor *post-mortem*. To be sure it is a great gratification to friends and relatives to have the departed ones commemorated for their good deeds, but it seems to me if this was done *ante-mortem* it would not only afford pleasure to the recipients, but encourage the young to imitate their virtues.

I am well aware of the fact that my old-time friend, Professor Gross, enjoyed the honors awarded to him during life for the great eminence he had attained in his profession. These honors were also a source of great satisfaction to his many friends, both in and out of the profession.

It is a common thing in England, and some other countries, for medical men to have even titles of distinction conferred on them in recognition for the eminent attainments made in their profession; and why should we not recognize the merits of our members in this country, when certainly we have some who stand fully abreast with any of their foreign compeers.

T. B. GREENLEY, M. D.

NOTE.—I am indebted to my genial friend, Dr. Poynter, of Science Hill Academy, Shelbyville, for the foregoing mentioned incidents in the history of Dr. Baker.

Notes and Queries.

WOUND DIPHTHERIA DUE TO LOEFFLER'S BACILLUS.—Abel (*Deut. med. Woch.*, June 28, 1894.) gives the case of a girl, aged seventeen, who had diphtheria of the fauces. While there was still membrane in the throat the girl accidentally wounded one of her fingers, and on the wound a false membrane appeared. From this cultivations were made in Loeffler's blood serum, and on the following day pure cultures of diphtheritic bacilli were found. A guinea-pig was, however, inoculated with culture thus obtained, and from the considerable time which elapsed before the animal died it appeared that the bacilli were not of a very high degree of virulence. The wound was treated with liquor ferri, and healed, though somewhat slowly. From this case it is evident that in patients with diphtheria the most trivial wound must be carefully looked after. Brunner recently mentioned three cases of wounds in patients without faucial diphtheria, in all of which he cultivated the bacillus of diphtheria from the wounds, but in all the cases accompanied by pyogenic cocci. In these cases of Brunner the cocci may have been the real infection agents and have also given rise to the membranous appearance on the wounds—just as on the fauces they may, like diphtheritic bacilli, give rise to false membranes. In other cases of wounds with a membranous coating Brunner found cocci only without the bacilli of diphtheria.—*British Medical Journal*.

THE "SLEEPING SICKNESS OF WEST AFRICA."—This curious disease occurs oftener in males between twelve and twenty years of age, although all ages and both sexes may be affected with it. Enlargement of the cervical glands is seen at the onset; drowsiness and actual sleep at unusual hours are followed by profound and lethargic slumber lasting weeks or months. At first active purgation arouses the patient, but later he succumbs to the lethal slumber and refuses all food; emaciation with increasing atrophy, exhaustion, and starvation cause death at the end of from three to twelve months. When moribund, the coma ceases for a short time and the mental faculties are clear immediately before death. The most frequent and virulent cases occur in the valley of the Congo; others from the Congo to Senegal, in the Sierra Leone district, and in the Hinterland. Slaves taken from the Congo or Sierra Leone districts suffer from the disease when in the West Indies, etc. The prognosis is bad. Guérin reports 148 cases, all fatal. Gore says 80 per cent are fatal. Forbes (*Lancet*) reports eleven fatal cases, also two which passed out of observation. At autopsy hyperemia of the arachnoid and slight chronic pachy and lepto-meningitis are found; the cerebral substance is pale, indicating anemia of cortical cen-

ters. In one case splenic enlargement occurred, in two cases filaria sanguinis hominis were found, probably coincidences. The cause is unknown. Theories are: (1) septic condition of the blood, as suggested by the arrest of development of active glandular elements; (2) presence of filaria, as advocated by Mason; (3) a neurosis affecting the neurotrophic system, Forbes' suggestion. Treatment has proved useless.—*Boston Medical and Surgical Journal*.

LOUISVILLE can well be proud of her medical schools. Every year we hear of men attaining prominence in other cities who claim our schools their *Alma Mater*.

J. Alfred Bodine, who was the head of the drug firm of Bodine & Schoettlin, graduated at the University in 1892. He was a brilliant student, and was recognized as the best anatomist the old University had seen for years. His popularity and ability won him the honor of being the president of his class, and in addition he was chosen to read the class valedictory that had been prepared by Dr. Bolling, but who was unable to appear on account of sickness.

Dr. Bodine then went to New York to further pursue his studies, and to-day, barely two years since his graduation, he is assistant surgeon to Dr. Van Arsdale, at the Good Samaritan Dispensary, which has the largest surgical clinic in the world; is Dr. John A. Wyeth's chief assistant, and has charge of Dr. Wyeth's private hospital; and has been elected Lecturer on Surgery at the New York Polyclinic. Besides, Dr. Bodine has established a good private practice in New York City.

Another University alumnus, Dr. Samuel Millikin, who graduated in 1888, has achieved remarkable success in the city of New York as an orthopedic surgeon. The Doctor is to be congratulated on another score, as last month he led to the altar one of 'Texas' most beautiful and richest heiresses.

THIOSINAMIN IN LUPUS.—Van Hoorn (*Weekblad van het Tydschrift van Geneeskundee*, June 16th,) records his experience of the effect of thiosinamin in lupus. On the whole he confirms the statements of Hebra as to the effects of the drug. After injections of thiosinamin he observed redness and swelling of the affected parts. During the reaction the patients noticed a feeling of heat and tension. The day after reaction abundant desquamation took place. The therapeutic effects were not constant. Patients in whom the affection was pretty severe showed much more marked improvement as long as the treatment was continued than those who were only slightly affected. The author's observations lead to the conclusion that thiosinamin is not to be recommended in cases in which the lupus is confined to a small space, and that, if possible, local treatment should be employed in all cases. Experiments as to the antiseptic effect of thiosinamin on skin parasites showed that the presence of small quantities in nutritive

media could sterilize a culture: that the addition of a few drops of a ten-per-cent solution would retard or, in some cases, prevent development; that, on the other hand, the immersion of a culture in a copious solution was, under certain conditions, ineffectual in killing the parasites in twenty-four hours.—*British Medical Journal*.

GRAVES' DISEASE AND PERIPHERAL NEURITIS.—In the last number of *Brain* Mr. Arthur Maude briefly considers this subject, which he first brought forward in a communication to the Medical Society last year. The symptoms on which he grounds the hypothesis that peripheral neuritis is present in Graves' disease are (1) the frequent occurrence of "cramp," to which Dr. Hector Mackenzie first directed attention; (2) hyperesthesia, which, he says, is nearly always present; (3) symmetrical paresis of the legs; (4) the altered condition of the knee-jerks, which are frequently diminished; (5) varying degrees of numbness, tingling, and pains; and (6) localized edema, which occasionally occurs in this disease. To account for the neuritis, Mr. Maude supposes that some toxic substance is produced either from the excessive disturbance of the thyroid gland or from alterations in the alimentary canal, and that this toxic substance acts upon the peripheral nerves and gives rise to the symptoms which, he thinks, at least suggest the presence of actual changes in the nerves themselves. Of course it would be idle to exhaustively discuss this hypothesis, which will no doubt at an early date be put to a crucial test by examining the nerves by modern methods; but we would venture to doubt the correctness of the view which Mr. Maude supports.

PERITONITIS FOLLOWING MUMPS.—The *Archives de Médecine et Pharmacie Militaires* gives this rare case: During an epidemic of mumps a soldier, twenty-two years old, presented himself with a double orchitis. It was not due to gonorrhea, and he had never had the least venereal infection. It had come on after a few colicky pains followed by an abundant movement of the bowels. Both testicles were affected in an equal degree. The temperature was 103.1° F. Topical treatment was prescribed for the orchitis, but as early as on the second day it was found that the patient had peritonitis, which resulted fatally in forty-eight hours. At the autopsy the testicles were found transformed into purulent collections with no trace of seminiferous tubules. The spermatic cords were bathed in pus, which continued beyond the inguinal canal. The intestinal coils and the mesentery were covered with purulent and fibrinous deposits.—*Boston Medical and Surgical Journal*.

HEMATOLOGICAL STUDIES.—In the *Centralbl. f. d. med. Wissenschaften*, April 21, 1894, Tschistowitsch relates his investigations in the case of a woman whose spleen had been removed two years previously. He distinguishes four kinds of leucocytes: (1) lymphocytes, (2) polynucleated neutrophile leucocytes, (3) mononucleated leucocytes, and (4) esinophile cells.

In this case the formation of the various elements in the blood took place satisfactorily. The quantity of the red cells and hemoglobin mostly varied within normal limits, but at times exceeded the normal. The leucocytes, especially the lymphocytes, were increased in numbers. The results observed in this patient are rather different from those seen in guinea-pigs in which the spleen had been removed; although there was considerable lymphocytosis there was no decrease in the red cells or hemoglobin, and no marked increase in the esinophile cells. Perhaps the patient was in the stage when the lymphocytosis had not yet disappeared, and the esinophile cells were beginning to increase in numbers. The patient's blood was examined at different times. Immediately after a meal, and an hour or even an hour and a half later, the leucocytes were increased in numbers, the increase being noted in the polynucleated and esinophile cells; the lymphocytes were unaffected, and the mononucleated leucocytes diminished in numbers.

British Medical Journal.

Special Notices.

A PETROLEUM EMULSION.—Although the medical properties of petroleum have been known since a very early date, yet it is only within a few years that the remedy has been prominently brought to the attention of the profession. There can be no question whatever but that petroleum is an oil which is digested and absorbed like any of the fatty foods. The oil is emulsified by the pancreatic juices and absorbed by the lacteals. The Angier Chemical Co. put petroleum on the market in the form of an emulsion because they believe that as the process of emulsifying thoroughly breaks up the oil into minute particles it thus predigests it and puts it in a condition so that it can be absorbed at once. The Angier emulsion has combined with it the well-known hypophosphites. Each ounce of the emulsion contains $33\frac{1}{3}$ per cent of purified petroleum and twelve grains of the combined salts of lime and soda. In a pamphlet which the company sends to us we notice the strongest testimonials from men well known to the profession vouching for the therapeutical properties of this preparation. In consumption, bronchitis, and in all the various diseases of the pulmonary tract the testimony shows this preparation to be of great use. As this is but recently advertised to the profession we would ask our readers to send to the Angier Chemical Company, at Boston, for literature on this interesting subject.—*Food.*

DR. ORAZIO SATARIANO, Barrafranca, Italy, says: Although opposed to the use of pharmaceutical specialties, I was struck with the formula of Bromidia (Battle), and knowing the action of its ingredients could not bring myself to believe in its possessing greater therapeutic power than its component parts. However, I determined to try it in a severe case of mammary neuralgia, which had proved refractory to an infinitude of other remedies. The result was brilliant and far beyond my expectations. I then made experiments with a preparation made according to the formula of Bromidia, by an experienced pharmacist, but whether due to the greater purity of drugs used, or special mode of combining, the results were not to be compared with those of Bromidia (Battle).

LOSOPHAN IN DERMAL THERAPEUTICS.—Losophan has been found to occupy a distinct place in the treatment of diseases of the skin as a stimulant and parasiticide. Although contra-indicated in acute affections, it has proved very serviceable in the

more chronic cutaneous conditions, such as the infiltrated forms of eczema and slug-gish ulcers of the leg. It has been pointed out by Drs. Waugh, Saalfeld, and Descottes that Losophan is a very valuable remedy in the treatment of pruritus and prurigo, and rapidly relieves the troublesome itching even in cases which have resisted other remedies. Saalfeld, who has recently studied the antiseptic action of this remedy, states that it destroys the organism of ringworm and favus within thirty seconds, thus confirming by bacteriological investigation what had already been observed in clinical practice, viz., the efficacy of Losophan in parasitic affections of the skin. In the management of cases of ringworm on various parts of the body, of favus, pityriasis versicolor, scabies, etc., the testimony is most favorable as to the curative effects of this remedy, and the well-known obstinate character of these affections renders it a very desirable addition to the materia medica.

DR. J. S. BENNETT, of Atlanta, Ga., writes us that he is greatly pleased with the following prescription. The doctor says: "In this combination I feel and believe we have the greatest remedy for lung troubles. The iron and manganese are found in all healthy blood, and being tonic and alterative they check the wasting, while the emulsion builds up the waste tissues. I prescribe this combination with the assurance that it will do good, as I do quinine in intermittent fever:

"R Ferri iodide,	gr. xxxii;
Iodide manganese,	gr. xvi;
Aqua, q. s. ft. solution, et adde	} ℥vi.
Angier's Petroleum Emulsion (small bottle),	

"Dose: Teaspoonful after meals, in sherry wine, milk, or water."

In referring to PEACOCK'S CHIONIA I may say it is very nearly, if not quite, a specific remedy for constipation. I have prescribed it in obstinate cases of confirmed constipation, and in each case the remedy has proved successful. One lady, who had been afflicted for years with the most obstinate constipation, took one eight-ounce bottle at my suggestion; this occurred four months ago, and since that time she has been free from any symptoms of her former malady, and is to-day in the best of health and spirits.

Port Sarnia, Ont.

H. PAGE, M. D.,

U. S. Consulate.

FOR shaking palsy nothing excels Tinct. *Æsculus Glabra*, $\frac{1}{2}$ dram, and *Celerina*, 8 ounces. Teaspoonful every two or three hours.

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

FISTULA IN ANO.*

BY J. N. BAUGHMAN, M. D.

Mr. Allingham says there are more cases of fistula than of hemorrhoids. Dr. Mathews says there are more hemorrhoids than fistulæ, but states that the greatest number by far of all rectal troubles belong to one of the two.

In a practice of twenty-one years I have met with but very few cases of fistula in ano, while I have had cases of piles of almost daily occurrence; but for the last few years I have had many more cases of fistula in proportion to the time than I formerly had. Now, why is this? I am of the firm belief that it was ignorance of the exact nature of many of my rectal cases. When I first began to practice medicine I thought I knew a great deal about physic, and it took quite a while for this idea to be eradicated, and I am now convinced that most country physicians are too much in the habit of taking the verbal statements of their patients when they have any rectal trouble, and at once say "piles," and prescribe some ointment for them, and never even make an ocular examination, much less use a speculum to examine carefully into the mucous folds of the rectum to find what lies hidden beyond where the finger or eye can penetrate. I think this was the main reason why my former rectal cases were all hemorrhoids. A patient would approach me and say, "Doctor, I have piles; what is good for them?" I would

* Read at the June meeting of the Kentucky State Medical Society, 1894. For discussion see page 270.

look wise, ask a few questions, and give some stramonium ointment and do her or him no good. The chances are that my patient no more had a case of piles than the Goddess of Liberty on the dome of the National Capitol, and if I had only made a careful ocular examination I would have been enabled to know it; but it was not convenient, or my patient did not like for an examination to be made, and the case would go on from bad to worse through the carelessness of the physician. Was this right? Was it honest? It was not.

I am speaking pretty plainly of myself, but I doubt not but that the shoe is fitting pretty closely the foot of nearly every M. D. in this audience. This is why so many rectal troubles remain uncured. If we would use as much care and patience with the milk of human kindness in the examination of this class of cases, we would effect more cures and be called blessed much oftener than we are.

I believe I am safe in the assertion that in at least one half of the cases of fistula I have met with the patient was also suffering from piles, and it is invariably the case that the piles is the only trouble they seem to believe they have, and in fact, with the common people, all the rectal troubles known to the physician are considered as piles.

It is easy enough to diagnose a case of piles, but it is often far different with fistula, and especially with the internal, blind variety, and it is often a very difficult task to discover the various ramifications the tract of a fistula may have, and this is of the utmost importance when it comes to treatment, for if any one of these tracts or any part of the sinus is left, it will result in a failure as regards the cure, and is often very damaging to the reputation of the surgeon.

It is easy enough to diagnose a complete external fistula, still it is sometimes quite a difficult task to find the internal opening even in this class, and in the internal, blind variety of fistula, if we are not very careful and painstaking in our examination we are almost sure to let it escape our observation. If we have once discovered the opening into the gut, we should mark well its exact location, and I think the time to operate is when we have succeeded in introducing a probe or grooved director into the fistulous tract, for we might find it a difficult task to introduce it successfully the second time.

In complete fistula it is a good plan to introduce a speculum, and then we may inject some colored fluid into the external opening and observe where it comes out in the gut, or what would be perhaps better would be to introduce the finger into the rectum and then gently

put the probe into the fistula and let it quietly feel its way until we felt it press out through the mucous membrane. I believe it would be a very good rule when we have a case of this kind to always be ready to operate at the time we make the examination, and I must say that I do not believe in any treatment but the knife, and in saying this I want to state my admiration for the fistulatome which Dr. Mathews speaks so highly of in his excellent work on Diseases of the Rectum. Now, I do not wish to be understood as saying no case of fistula can be cured without undergoing the cutting operation, for by the use of a perfect system of hygiene, together with thorough cleanliness, we will often be enabled to cure fistula by the use of irritating injections, but we will always find these a slow and uncertain factor, which will never be substituted for the surer and more heroic treatment, and will only prevail in those patients who are unwilling to listen to the good judgment of the surgeon, simply because they are afraid of the pain produced by the knife. It would be best in such cases to simply decline to further treat the case, still this is sometimes very hard to do for various reasons.

There is no doubt but fistula in ano will sometimes get well without any treatment, as is clearly shown by the following case:

In September, 1887, this patient began to suffer with a throbbing pain in the region of the rectum. He had not received any injury or hurt of any kind in this region, and was unable so account for the rectal abscess that was forming. He suffered from retention of urine, and the bladder had to be emptied with the catheter for several days. The abscess continued to go on from bad to worse, the patient suffering the most agonizing pain, with a temperature which went as high as 103° F. with a quick, bounding pulse and some delirium, and an almost erysipelatous condition of the entire perineal region. The attending physicians failed to open it and give free exit to the pent-up pus, which had burrowed badly. Finally the abscess opened of its own accord, and then one of the physicians opened it up freely and let out a good deal of that most offensive pus which only a rectal abscess can furnish. From this time on the case had the most perfect treatment, but it was some four months before it healed, and then, as is the rule in those cases, it left a fistula, the external opening of which was about one and one half inches in front of the anus. He could not locate the internal opening, as the writer of this article was the patient and of course was unable to examine within the rectum, but he knows it was a complete fistula, for gas would at times pass entirely through the tract for some two years after

it first appeared, and then it ceased, but the external opening continued to suppurate until September, 1892, when it ceased, since which time it has given no trouble or any signs of fistula whatever, and there has been no rectal trouble since. There was no treatment of any kind, and the patient was constantly on horseback practicing his profession. This was a spontaneous cure, but I consider it as one of the rarities of surgery.

The treatment of fistula which if properly carried out will produce the most good is undoubtedly the preventive, for I think there never was a case of fistula in ano that was not preceded by an abscess of some kind, and if we would be careful to open up the abscess as soon as pus is discovered and give it free vent, and then keep it packed with iodoform gauze so it would heal from the bottom, we would very rarely have it result in fistula. But while we are giving the local parts appropriate treatment we should not neglect the constitutional treatment that is so often necessary in those cases, for while we sometimes find rectal abscess in the strong and robust we more often find it in the consumptive and scrofulous diathesis, and so long as the general health is impaired we can not expect the local lesion to be furnished with healthy granulations which are so essential to a successful issue. It is also in this class of cases we can bring into active help for our patients our psychological knowledge, for all rectal and urinary troubles play sad havoc in their debilitating effect upon the mind.

I would here state that I would not hesitate to operate on a fistula in a consumptive for fear of aggravating the lung trouble, but only from the fear that in some stages the system is so run down and the blood in such a poor state as to make it impossible to obtain healthy granulations in the cut surface.

I am of the opinion from what I have read and studied in regard to the fistulatome (never having used it) that in all the simpler forms of fistula it will take precedence over the bolder cutting operation with the knife (for I look upon it as only being a simpler form of doing the cutting operation), for it will stop the cutting through the sphincter muscle, which is necessarily done in the old method, and thereby prevent any liability of destroying the usefulness of the sphincter muscle and producing paralysis and resulting in non-retention of feces, which would be the most deplorable thing imaginable. It also does the work in a far less painful manner, and, in fact, the patient need not be aware of an operation being performed until after it is over; and again, he

need not be compelled to take his bed as he would have to do if the entire sphincter was cut through. This little instrument can do all the cutting that can be necessary, that is, where it can reach the fistulous tract, and it would be best to turn the instrument so as to cut the walls of the sinus in two or three places so you may set up an amount of inflammation sufficient to produce a granulating surface along the entire canal, and as should be done in any operation for fistula; the granulations should be kept forming from the bottom of the wound if we expect to make it a success.

There is a great objection with most persons to the use of iodoform on account of its odor, and from this fact I would be inclined to use as a dressing for the granulating surface Marchand's peroxide of hydrogen, which is the most cleanly and at the same time the most perfect disinfectant we have. Almost perfect cleanliness, and I may add sweetness (surgically considered), even in a rectal abscess may be obtained by the use of this remedy, and it is perfectly harmless, and if kept in a cool place and well corked and wrapped can be kept pure for many months.

Of course we should be very careful and have every thing connected with the operation, patient, instruments, and hands, scrupulously clean, which is better than any antiseptic at our command.

I have not mentioned the use of the ligature for the very reason that I do not think it should be used in preference to the cutting operation.

As a parting thought let me admonish you to always be sure you have ferreted out every ramification of your fistula and given it as careful treatment as the principal one, if you expect your operation to be crowned with success.

FLAT LICK, KY.

ACUTE LACERATIONS OF THE PERINEUM.*

BY J. G. CARPENTER, M. D.

To Drs. Emmet, Price, Skene and other illustrious surgical lights the surgery of the perineum is an old story, yet to most of the general surgeons and physicians it is an uncultivated field that in due time will bring forth a surgical harvest of an hundred fold. An unfortunate person is she who has received a lacerated perineum; most unfortunate is she whose medical attendant is unable or afraid to detect a perineal

* Read at the June meeting of the Kentucky State Medical Society, 1894. For discussion see page 27.

rent, and also incompetent to give the necessary surgical treatment, or afraid to call a surgeon to do the essential repairs.

Professor Dewees, sr., said the obstetrician's whole duty to the parturient is not done until he has restored her to her former physiological state, viz., made her a sound woman.

Perineal lacerations do sometimes occur in the hands of the best physicians and surgeons, and most often occur to the ignorant, timid, and incompetent medical attendant and midwife; in their hands rents are the most disastrous to the patient.

Since lacerations take place with the best of surgeons, and are most successfully treated just after the third stage of labor, of how much greater importance and necessity is it then that the physician and midwife surgically incompetent should give the danger signal, viz., the presence of a rent, the dangers of delay to patient and family, and have a competent surgeon called and repair the rent at once. No physician should be allowed to attend a confinement if unable to repair a perineal rent. Every year the graduates of our medical schools are woefully deficient in the treatment of this accident.

The sequelæ of this rent are hemorrhage and shock—hemorrhage from the pudic, obturator, bulbus vestibuli, vaginal, and perineal veins and arteries, and, should the rent extend into the rectum, from the hemorrhoidal arteries and veins, it may be copious and considered *post-partum*; second, infection through an open wound, puerperal septicemia; third, acute anemia and collapse; fourth, should the rent not be repaired, a slow, tedious, and incomplete convalescence; fifth, uterine displacement and sub-involution and endometritis; sixth, prolapse of ovaries, ovarian and tubal disease; seventh, retroversion, prolapsus, and rectocele; eighth, hemorrhoids with eversion of anus, fissures and ulcers of anus and rectum; ninth, subsequently neurasthenia, reflexes to the brain, spinal cord, heart, lungs, kidneys, and peripheral nerves, manifested by irritation, congestion, neuralgia, and functional impairment of adjacent and remote organs.

The best statistics show one perineal rent to every four primiparæ—twenty-five per cent. The causes may be those inherent to mother; second, omissions and commissions of the medical attendant. Rents inherent to the patient are rigidity and hyperesthesia of the perineal nerves and muscles, caused by the products of a former inflammation which has impaired the elasticity and mobility of these muscles by former pelvic disease or trauma ("muscular ankyloses"), complication of labor with

inflamed hemorrhoids, or the latter and anal fissure or rectal ulcer in the lower third of the rectum. Stretching or overdistension of the perineum during parturition, or by prolapse of pelvic organs and growths, extreme constipation and impaired nutrition are given as causes by Skene. The maternal parts may not be developed, as in young primiparæ; the child's head may be too large; approximation of pubic rami; varicosity of perineal veins; chronic edema; impaction of head, most frequently in occipito-posterior positions, and lastly, extraction of child by the feet often cause rents of the perineum.

Phlegmatic women who have failed to take sufficient exercise to develop the pelvic floor are liable to lacerations during parturition; the muscles are poor in quality and rupture easy under extreme pressure.

In vigorous, muscular women the pelvic floor is often unyielding because of the great strength of the muscles, and before relaxation is done powerful uterine contractions drive the fetus forcibly on the muscles, and they, not having time to relax and stretch, tear. The pelvis may be shallow and wide in its straits; a precipitate labor forces the child suddenly before the muscles have had time to relax.

Sedentary or indolent habits, pelvic, perineal, and hemorrhoidal irritations, congestions, and inflammations impair the nutrition of the pelvic floor, render it irritable, softened, and predisposed to rents.

Women who live an indoor life, given to the follies of fashion, tight lacing, improper dress, are enervated and predisposed to rents of the utero-genital tract: pudendal hematocele, perineal and vulvar infiltrations from anasarca or phlegmon; the sitting or standing posture, precipitating the second stage of labor; violent uterine contractions with medium-size fetus and rigid perineum, and ergot given before the first stage of labor is complete, may precipitate labor and cause a rupture of the pelvic floor. Vaginal and rectal polyps or rectoliths may assist in producing rupture, also failure to prepare the patient for the ordeal of labor, an overloaded colon, sigmoid, and rectum, and distended bladder, failure to support the perineum and make the head, shoulder, or breech hug the arch of pubes, traction of forceps in the wrong direction, not following "Carus' curve," and Tarnier traction forceps by causing pressure on the pelvic floor with the traction rods, though the forceps are made to act in the proper direction.

The shape of the rents may be diamond, irregular, stellate, or longitudinal, oblique and transverse. Accompanying or in the absence of a perineal rent there may be a rent at the anterior commissure (*labiorum*

pudendi), or an oblique or transverse tear of the posterior commissure, a recto-vaginal rent, with or without a cervical tear; the perineal body may be torn or the pelvic floor stretched without there being a cutaneous rent externally.

Varieties of perineal rents or injuries to the pelvic floor are, first, various degrees of laceration in the perineum, that is, in the median line of the pelvic floor; second, subcutaneous separations of the muscles of the pelvic floor at their junction in the median line or so-called perineal body; third, laceration in the median line and temporary loss of power in the remaining muscles from overdistension; fourth, laceration of the levator ani, occurring alone or accompanied by the lesions already given; fifth, atrophy and permanent paralysis from injury during parturition and other causes; sixth, loss of muscular motion caused by the products of former inflammation.

Diagnosis. Often an audible snap is heard by patient and attendants; acute pain and sensitive spot to patient on touching the raw exposed surface of rent; a sensitive, uneven, depressed surface to sense of touch; absence of smooth integument or mucous membrane intact; absence of perineal body; shortening of space between anus and posterior fourchette; increase of the antero-posterior diameter of the ostium vaginæ; the abnormality of the rent and dissimilarity in touch to normal unabraded tissue. If necessary, ocular inspection, yet every accoucheur should have an eye on each of his fingers as well as in his head; absence of perineal body when one finger is passed into rectum, and another in the vagina, the recto-vaginal septum only being present.

Should the physician do his whole duty he will first prepare the patient for the "lying-in period," then try to prevent complications during accouchement, and should they occur repair them at once, then women would come out of the "lying-in chamber" sound and healthy. The dangers of delay, ignorance, timidity, prejudice, indolence, lack of surgical skill, auto-infection, impaired health, and the morphine habit would be avoided; health, happiness, prosperity, would be the patient's gain, and much gratitude and admiration from patients and friends, increase of clientele, reputation, and revenue would be the doctor's great reward. When the obstetrician has done his whole duty then there will be none or few chronic lacerations for the pelvic surgeon to repair. Every respectable doctor must and will know how to surgically treat acute lacerations of the perineum. Unscrupulous and fakir doctors should never be allowed to join our noble profession and tinker with the

sacred art of midwifery and its sequelæ. Forceps are a blessing to the mother, child, and accoucheur. When judiciously applied and in skillful hands they prevent lacerations, but become a power for evil in the hands of the incompetent applied at the wrong time, and traction and pressure made in the wrong direction. The Tarnier axis traction forceps no doubt cause many lacerations of perineum even when applied to multiparæ; when traction is made in the axis of the pelvic canal serious damage may be done also to the pelvic floor.

Many of the senior members of the profession, and a great many of our recent graduates know how to cause lacerations of the perineum and utero-genital tract with quinine, ergot, the forceps, the sitting or vertical posture, overdistended bladder, rectum, sigmoid, and colon, but know little or nothing about the surgical treatment of perineal rents and lacerations of the utero-genital tract; do not even know how, and are afraid to find them, and should the patient find out, after a long and incomplete convalescence, the perineal floor is injured, the "Doc" is ready to send her to the far-away city professor of gynecology, when the patient should have received the proper attention at home. Incompetent physicians are as wholesale agents supplying the pelvic surgeon with work—work from the drone's workshop that has to be done over before health and security of life can be restored to patients.

Prophylaxis (an ounce of prevention is better than a pound of cure) is doubly true of lacerations. Lusk states preventive measures are, first, those designed to check the exit of the head before the fullest expansion has been secured, and to prevent expulsion during the acme of a pain when the borders of the orifice are most rigid; second, measures which impart an upward movement to the head with the view of making all unoccupied space available beneath the arch of the pubes; third, measures which favor expulsion during the interval between the pains, or at least after the acme has subsided. By the parturient breathing short, fast and thoracic, trying to suspend the pain of labor; also, voluntary action; the attendant's hands preventing expulsion of head by pressing it up and forward against symphysis pubis at the time of active pain; then as the labor pain subsides let the patient hold her breath and expel the head by voluntary action in the intervals of labor pains when the vulva and perineum are relaxed to the utmost. If the parturient can suspend voluntary assistance by mental control or chloroform many lacerations will be prevented. The relaxing influence of chloral hydrate internally, the hypodermic of morphia and atropia, and hot

water vaginal and rectal enemata are powerful means of relaxing the perineal floor to its utmost capacity.

Though there are several degrees of laceration, yet practically speaking there are two, viz., the one which extends through the muscles of the anterior portion of the pelvic floor, that is, from the vulva to the sphincter ani muscle, and the other which extends through the sphincter ani muscles and into the rectum.

In its simplest form the laceration extends through the mucous membrane of the vulva, the integument, and the junction of union of the bulbo-cavernosus with the transversus perinei muscles; a few fibers of the levator ani and the fascia, elastic and areolar tissues which constitute the perineal body. The second form of injury mentioned in the classification is subcutaneous separation of the muscles of the pelvic floor at their junction in the median line or perineal body. The mucous membrane of the vulva and the skin covering the perineum remain normal, but the transversus perinei muscles are torn apart in the median line. The bulbo-cavernosus muscles are separated from their insertions at the center of the perineum, and possibly some of the fibers of the levator ani muscle are also lacerated. There is, in short, skin and mucous membrane alone remaining uninjured. The result of this injury is falling of the pelvic floor, and usually prolapsus of the pelvic organs. The function of the pelvis is destroyed as completely as in the injury first described.

Again, while the index finger is in the vagina, the parts anterior to the sphincter ani muscle can be grasped between the finger and thumb, which will show that where the perineal body should be there is only skin and the posterior vaginal wall. There is still another method of examination, and perhaps the most critical one, that is, to pass one index finger into the vagina and the other into the rectum, when it will be found that the only resisting muscular tissue felt between the two fingers is the sphincter ani.

Atrophy, and the consequent paralysis from injuries during parturition and other causes, occurs only in cases of long standing, and is, in fact, a secondary state resulting from laceration of the muscles or overdistension. It may follow any of the injuries already mentioned that have been long neglected, or in which unsuccessful efforts have been made to overcome the original injury. The muscles having been torn or separated from their ligamentous attachments during parturition, become functionally inactive, and remain so until they undergo fatty

degeneration and are finally lost. An acute laceration if not properly treated becomes a chronic one.

A chronic laceration of the perineum is accompanied by such general irritability as to change the disposition of the woman. The perineum is supplied liberally with blood-vessels and nerves, including branches from the sympathetic system which are freely distributed to the neighboring erectile tissues. The presence of sympathetic nerves offers an explanation of the reflex irritation so often produced by the cicatricial tissue in the perineum when a dense cicatricial tissue is left from a lacerated perineum. The most profound degree of anesthesia scarcely allays the irritation excited by traction necessarily produced in using Sims' speculum. When the perineum has been lacerated down to the fibers of the sphincter ani muscle, there remains no support to the uterus while the woman is in the upright position, except through the connective tissue and the utero-sacral ligaments. In the erect position a perpendicular line passes from the front of the sphincter ani through the posterior lip of the uterus or even behind it. The uterus is thus suspended over a constantly dilated and relaxed cavity, and with this state of things it can not surprise us that before a very long period complete prolapse of the uterus should take place.

Yet it is sometimes observed that with extensive laceration there exists neither disturbance of the nervous system nor any discomfort which can be attributed to a want of support. But these cases are certainly only exceptional, and sooner or later they all come under the same general rule. As long as the perineum is in its integrity the anterior and posterior walls of the vagina lie in close contact from lateral traction and air is excluded. This is due to the lateral attachment of the vagina with the connective tissue of the pelvis, and to the union of the pelvic fascia to the vaginal outlet, just as the canal becomes joined with the labia. The upper and lower walls of the canal are thus brought together the same as the sides of an elastic tube would be by lateral traction in a direction similar to that exerted by the connective tissue around the vagina.

In lacerations of the perineum the ischio-perineal ligaments are divided, and the transversus perinei muscles and other attachments draw the sides of the vaginal outlet apart. The connective tissue of the pelvis can therefore no longer furnish the same support, nor in the same direction as before laceration, so that the canal remains patulous. The great discomfort which is experienced sometimes even before any prolapse

has been detected must be due to overdistension of the blood-vessels, the coats of which are no longer properly supported, and their increased pressure on nerve fibers. This is a condition in itself likely to prove an important factor in displacing the uterus by adding to its weight and by exciting tenesmus. Whenever the perineum has been lacerated so that the proper degree of support of the vaginal walls is no longer exerted, there can be no doubt as to the necessity for an operation to restore the parts to their original condition. There are cases, however, where a doubt as to this necessity may remain, even after a careful examination. After the occurrence of the accident, and if the vagina, as has been described, becomes a patulous canal, the air will enter into and be displaced from the passage with every movement of the body. In chronic lacerations, in case of doubt as to the propriety of an operation, I question the patient in regard to this circumstance, and always operate when I learn that on suddenly turning in bed, or on making any quick movement, the patient observed the air to escape from the vagina, like flatus from the anus.

In all injuries of the pelvic floor which impair its supporting function to any extent, prolapse of the pelvic organs will follow in time, except in three conditions, viz: First, when the injury is compensated for by the muscles which still maintain their attachment to the vagina and rectum, drawing the remaining portion of the pelvic floor upward, forward, and toward the pubes, thereby closing the vaginal orifice and supporting the pelvic organs; second, where by reason of some intrapelvic inflammation the organs have become fixed by adhesions; third, where the patient is abundantly supplied with adipose tissue and takes very little active exercise.

Treatment. The essentials of perfect surgical repair are, first, a healthy system and wound; second, perfect coaptation of wound tissues, muscle to corresponding muscle, tendon to tendon, ligament to ligament, fascia to fascia, mucosa to mucosa, skin to skin; third, stitches taken deep enough and describing the arc of a circle, so that each tissue will have its corresponding lacerated lips duly in apposition, and the entire stitch when completed will form a circle. The restoration of the function of the muscles of the pelvic floor is the great object of all surgical operations, and union by primary inflammation is the great desideratum.

The first step in the technique of surgical repair of perineal lacerations is to stop hemorrhage; second, thorough asepsis of wound, neigh-

boring parts, utero-genital tract, vulva, rectum, thigh, nates, abdomen, bladder, rectum empty and at rest; third, proper introduction of sutures forming the arc of a circle, aseptic with an aseptic needle and hand, wound irrigated with hot aseptic water, all interposing clots removed, lips of wound placed in apposition by traction on sutures. Sutures should not be tied too tight for fear of congestion, strangulation of tissue, and stitch abscess, the lowest suture tied first, and with each subsequent suture use the running tie so as to more completely coaptate the lips of wound and avoid superficial sutures. The last stitch should be protective in normal tissue above the rent to take tension from the last stitch in the laceration. All minor rents of utero-genital tract internally or externally, or of perineum, should be sutured with aseptic catgut to prevent foci of infection. Patient's limbs (knees) must be gently bound together with a bandage, and the seat of traumatism placed at rest to prevent tension, traction on stitches, and separation of lips of wound. Should the laceration extend through mucosa and skin to center of ischio-perineal ligament, or through the labiæ, or involve the anterior commissure, aseptic catgut would be preferable. Should the laceration extend through perineal body into or through the sphincter ani, then aseptic silk or wormgut or silver wire should be used, as more strength, tension, and time are or may be required in healing the wound, and the sutures would not be absorbed should it be necessary to retain them seven to ten days; besides, the sutures should be placed catching the ends of the sphincter, the levator ani, transversus perinei, and bulbo-cavernosus muscles. If rent extends into the recto-vaginal septum the stitches must first be placed from the vaginal side, ends tied on the rectal side and brought out at anus, then the perineal stitches applied as above, and technique completed as in any other perineal laceration. Bladder must be catheterized every six or eight hours to prevent tension and vesical tenesmus. A tight-fitting binder with a pad between it and the abdomen will cause descent of womb and tension on the sutures. Patient should not move except when lifted by the nurse, and herself, bed, linens, and nurse must be aseptic in all the details of treatment. If the lochia become offensive a hot aseptic irrigation, *pro re nata*, will be highly essential.

To the physician who knows how to do aseptic work in all its details success as a rule will crown his efforts, and the old adage that a good workman never quarrels with his tools is doubly true in the repairs of injuries to perineum.

In conclusion, no physician should be allowed to attend a "case of labor" if he is incompetent to surgically repair an acute perineal laceration. When ignorant midwives and ignorant and incompetent graduates from our medical schools are debarred from practice by a higher standard of medical education, or State legislation, then there will be few chronic perineal lacerations for the pelvic surgeon to treat. The irregular quacks have been driven from Kentucky. Now it is right and just that the "regular quacks" be eliminated.

Statistics show twenty-five per cent of primiparæ receive lacerations of perineum. Yet we often hear physicians say that in a midwifery practice of ten or thirty years they have never seen a cervical or perineal laceration. They tell the truth in part—they are afraid to look for them, and if found they do not know how to repair them, and patients after an incomplete recovery go to some competent surgeon who does find them and give the proper surgical treatment.

STANFORD, KY.

TONSILLAR HYPERTROPHY.*

BY T. C. EVANS, M. D.

Of the physiology of the tonsil we know but little. If they in any way add to the comfort or the well-being of the human economy, the part they play is so infinitesimal or so obscure as to have eluded the researches of the physiologists. If their destruction or removal is followed by any deleterious effects, they are so insignificant or so remote as to have escaped the notice of both the clinician and pathologist.

Bosworth seems to have sized up the situation when he says: "I am disposed to think that the faucial tonsil in a healthy throat constitutes an organ of but trivial significance, either from an anatomical, physiological, or clinical point of view." From our present knowledge of the structure and functions of these organs, it appears that when in the economy of nature they play an appreciable part, it is always in the rôle of an offender, disturbing the peace and harmony of neighboring organs and tissues, and in various interrupting physiological processes.

Hypertrophy is by far the most common disease of the tonsil; it is essentially a disease of childhood and early adolescence, as we rarely find a case developing after puberty. The chief predisposing cause

*Read at the June meeting of the Kentucky State Medical Society, 1894. For discussion see page 274.

lies in that peculiar diathesis which has been described by Potian and others under the name of "lymphatism." Many of the writers on hypertrophy have mentioned scrofula as one of the principal causes of the disease; while it is undoubtedly true that we frequently see patients who are the subject of scrofulous or tubercular glands, who also have enlarged tonsils, but the percentage of cases is not too large to be accounted for by coincidence. Lymphatism also predisposes to hypertrophy of the pharyngeal tonsil, and the glandular tissue at the base of the tongue. I doubt if the lymphatic diathesis has any tendency to eventuate in the true tubercular or strumous condition. Among the most frequent exciting causes of hypertrophy may be mentioned the occurrence of scarlet fever, diphtheria, and measles. Some cases are apparently due to recurring attacks of catarrhal pharyngitis, but it is usually impossible to say whether the hypertrophy is due to the catarrhal inflammation or *vice versa*. It is most always a bilateral affection, marked unilateral enlargement being an indication of malignant disease or of syphilis.

Hypertrophy is not only a source of much discomfort and annoyance, but is productive of almost an unlimited amount of evil. While they are not usually painful in their quiescent state, they are often subject to exacerbation of acute inflammation involving the pharynx, rhinopharynx, and even the larynx; they obstruct the respiratory process and prevent the proper oxygenation of the blood. This is especially true during sleep when they fall back and interfere with nasal respiration; the patient snores, is restless, and often the subject of night terrors; they mechanically interfere with deglutition; the presence of decomposing cheesy matter in the lacunæ produces fetor of the breath and derangement of the digestive functions, and in some cases causes an irritating cough or a persistent clearing of the throat; they are a constant source of danger from contagious diseases. It is a well-known fact that children with enlarged tonsils are peculiarly susceptible to the contagion of both scarlet fever and diphtheria, and that their chances for recovery from these diseases are much less than children with normal tonsils.

Catarrhal and suppurative inflammation of the middle ear, the condition of the chest known as "pigeon breast," most cases of persistent mouth-breathing, and the expressionless face, symptoms until recently ascribed to enlarged faucial tonsil, are now known to depend very largely on obstruction in the naso-pharynx from adenoid growths. Just here I

wish to digress from my subject to say that I am exceedingly skeptical in regard to the "habit" of mouth-breathing. That many people are persistent mouth-breathers is evident, but I doubt if they ever form or continue the habit except from necessity; consequently the use of any of the appliances that have been invented to prevent mouth-breathing only complicate matters by compelling the patient to exist on a diminished supply of air for eight or ten hours out of the twenty-four.

In regard to treatment, I think the members of this Society will agree with me in the statement that medicinal treatment, either local or constitutional, of enlarged tonsils offers so little hope of success as to be hardly worthy of consideration; that the use of drugs still retains a more prominent place in the text-book and the literature of this affection than the clinical facts will warrant may be easily explained by the proneness of all of us to pander in some measure at least to the patient's or parent's dread of cutting instruments; to their desire to procrastinate or altogether avoid an operation. But I have never been able to comprehend why many of the older writers and even some of the comparatively recent ones should have looked upon tonsillotomy with a degree of suspicion amounting almost to a superstition; why men who would have amputated a limb, enucleated an eye, removed a testicle or an ovary, performed a tracheotomy or craniotomy without a twinge of conscience, should have gazed upon that diseased and deformed enigma of the fauces with a kind of superstitious reverence and a fancy that they saw in it some peculiar evidence of creative intelligence, the removal of which would not only be a reflection on the Creator, but would sooner or later be followed by some dire calamity, ranging all the way from impotence to insanity. Practically, then, the question of treatment of hypertrophied tonsils resolves itself into a discussion of the best and safest method of removal. Most common among the methods now in use may be mentioned: Removal by tonsillitome, the Mathieus and McKenzie instruments being the ones mostly used; removal with volsellum and bistoury or the volsellum and scissors; by cold wire snare; by the galvano-cautery snare, and their destruction by the galvano-cautery. For cases of simple hypertrophy without adhesions of the pillars of the fauces, removal with the tonsillitome is easy and perfectly safe. Personally I prefer the Mathieus instrument, which so nearly fills all the indications as to leave little to be desired. I rarely use an anesthetic, though it is sometimes necessary in young children. The use of cocaine does not obtund the small

amount of pain that follows the excision, unless it is injected into the tonsil, consequently I seldom use it, the small amount of pain or discomfort following the cutting being in my experience less disagreeable than the effects of the cocaine. The bistoury has little or no advantage over the tonsillitome, and is not free from danger in unmanageable children or nervous adults. The cold wire snare is less liable to be followed by hemorrhage, but has the disadvantage of being hard to adjust, moreover the operation is exceedingly painful. The galvano-cautery snare is also difficult to adjust, but is less painful than the cold wire. It might prove a valuable instrument when it is necessary to operate on a hemorrhagic subject. The galvano-cautery is a most valuable apparatus for reduction or destruction of enlarged tonsils. The amount of disturbance from enlarged tonsils is not always in proportion to the hypertrophy. Tonsils may be very considerably enlarged and still not project beyond the pillars of the fauces. In these cases, in fact in all cases where the gland is so situated or is adherent to the faucial pillars as to be inaccessible to the tonsillitome, the galvano-cautery becomes almost indispensable. In operation with this instrument I fix the tonsil with hook or tenaculum, then with an electrode, bent at right angles to the handle to avoid injury to the pillars of the fauces, make four or five deep punctures in the tonsil. The pain is inconsiderable, and the reaction usually not great. The destruction is rather tedious; ten or twelve sittings are often necessary to get rid of the entire gland, which is of course quite an objection, especially in children.

The question of hemorrhage is probably the most serious one in connection with the surgery of the tonsils. With all that has been said and written in regard to this alarming and much dreaded accident, it is surprising that there is not a single authentic record of a fatal case where the operation was performed in accordance with modern methods. It seems that all cases of alarming hemorrhage have occurred in the adult, and most cases have followed the operation with the bistoury.

LOUISVILLE.

A REPORT OF ONE HUNDRED AND SEVEN INTUBATIONS.

BY W. B. PUSEY, M. D.

Herewith is submitted a report of one hundred and seven cases of intubation done for the relief of membranous laryngitis. They are grouped according to age, the youngest being eight months old, and recovered only after a desperate struggle; the oldest was nine years and five months, and died. From the results attained it does not appear that age is so much of a factor. Of course nothing can be determined from such a limited number of cases, but it is mentioned because of the commonly accepted idea that intubation is not a satisfactory operation in the very young. It is hardly necessary at this time to discuss the relative merits of intubation and tracheotomy. That has been settled by the almost universal acceptance of the newer operation. The necessity for tracheotomy in certain cases is readily conceded, but any one who has seen a little sufferer gasping and pulling for breath, lying, standing, tossing himself in any position that may seem to offer him a slight relief, his little fist, it may be, deep down in his throat in an effort to rid himself of an ill that is so surely choking him, every accessory respiratory muscle bending itself to the desperate struggle for air, his face beaded with the cold perspiration of despairing energy—any one who has seen such a little one relieved almost instantly and sink into the quiet of perfect sleep by such an apparently simple and inoffensive procedure as intubation could hardly commend the bloody, painful tracheotomy, which surely does not offer better chances for recovery.

The accidents in intubation are described usually as of common occurrence, and serious in their results. I have never seen a false passage made in efforts at introduction, or injuries of any consequence to soft parts while extracting the tube. In one case the head of the tube got below the true cords in efforts at removal, but was gotten out after some difficulty with no bad results to the patient. In one case death was certainly produced by blocking of the tube by loose membrane. I have never seen fatal obstruction from the pushing down of the membrane before tube, or obstruction from food or vomited matter. These are only a few of the accidents, but they are by far the most serious, and described as of most frequent occurrence. From my experience I would

say that they are exaggerated, or are due to the ill-luck of some particularly unfortunate operators.

The tube is usually removed on the fifth, sixth or seventh day. I prefer to leave it in the full week, provided there are no indications for its removal. A few patients have worn the tube considerably longer; one recently for twenty-two days, it being removed after the sixth every three or four days. The cases are as follows:

3 were under 1 year of age,	2 recovered.
11 were 1 year of age,	4 recovered.
13 were 2 years of age,	8 recovered.
22 were 3 years of age,	6 recovered.
20 were 4 years of age,	12 recovered.
17 were 5 years of age,	4 recovered.
7 were 6 years of age,	4 recovered.
8 were 7 years of age,	5 recovered.
4 were 8 years of age,	2 recovered.
2 were 9 years of age,	1 recovered.
107	48 recovered.

Giving a percentage of 44.8+ recoveries.

These are not selected cases, but every case in which the tube was introduced, some few of them being almost moribund when operated upon.

In not one case where intubation had failed was it agreed that tracheotomy would avail.

LOUISVILLE.

MALE HYSTERIA ASSOCIATED WITH MORAL INSANITY.—De Santis (*Il Policlinico*) reports two cases in which the above-mentioned phenomena presented themselves, making them the occasion of the following reflections: True moral insanity can not be in any case the result of hysteria. Given the fact of the association of hysteria with insanity, one should consider that the symptoms of the two maladies proceed and coexist side by side, it being very difficult to assert that there exists between the two diseases a true fusion, resulting in a species of hybridization. The study of numerous cases is opposed to this conception of hybridism, suggesting rather a simple association of symptoms in the sense suggested by Charcot. Psychological diseases may be conceived of as so many successive differentiations of hereditary neurosis—differentiations determined in a measure by the action of surroundings, and perhaps also by special hereditary predispositions, which latter may have needed an occasional stimulation to render them manifest.—*British Medical Journal*.

Reports of Societies.

KENTUCKY STATE MEDICAL SOCIETY.

Thirty-ninth Annual Meeting of the Kentucky State Medical Society, held at Shelbyville, Kentucky. June 6, 7, and 8, 1894.

[CONTINUED FROM PAGE 232.]

Dr. Thomas Hunt Stucky, of Louisville, read a paper entitled "Colonic Dyspepsia." The paper was discussed by Dr. John A. Larrabee, of Louisville, the discussion being closed by the author.

Dr. J. H. Kellogg, of Battle Creek, Mich., read a paper "by invitation," entitled "A New and Precise Method of Investigating Functional Disorders of the Digestion, Based upon a Study of more than Thirty-three Hundred Stomach Fluids." No discussion.

On motion the Society adjourned until 8 P. M.

SECOND DAY—EVENING SESSION.

The Society reassembled at 8 P. M., with the President in the chair.

Dr. J. N. McCormack, of Bowling Green, read a paper entitled "Obstacles to be Met in Elevating the Standard of the Medical Profession."*

Dr. T. B. Greenley, of Orell, followed with a paper entitled "How Long, under Certain Conditions, Can the Longevity of Man be Maintained?"* These papers were not discussed.

Dr. I. N. Bloom, of Louisville, offered the following resolution, which was adopted:

Resolved, That the Kentucky State Medical Society heartily endorses the laws regulating the practice of medicine as they now exist in this State, and further that it recognizes the unselfish labor and constant devotion of Dr. J. N. McCormack in securing the passage of the same, and the efforts of the State Board of Health in putting them into execution.

On motion the Society adjourned until Friday morning, 9 o'clock.

THIRD DAY—MORNING SESSION.

The Society was called to order by the President at 9 A. M.

The Permanent Secretary read the report of the Committee on Nominations, as follows:

* See American Practitioner and News, Vol. xviii, pages 41-59.

President, Dr. J. B. Marvin, Louisville.

First Vice-President, Dr. C. W. Aitken, Flemingsburg.

Second Vice-President, Dr. John N. Baughman, Flat Lick.

Permanent Secretary, Dr. Steele Bailey, Stanford.

Treasurer, Dr. J. B. Kinnaird, Lancaster.

Librarian, Dr. Frank Boyd, Paducah.

Board of Censors, Drs. W. W. Richmond, Clinton; W. R. Kirk, Louisville, and C. D. Mansfield, Stanton.

Place of meeting, Harrodsburg.

On motion the report of the committee was adopted.

Upon motion of Dr. McCormack the physicians of Harrodsburg and Mercer County were requested to select a committee of arrangements for the next meeting.

The Committee on Publication was announced by the President as follows: Drs. H. A. Cottell, W. Carroll Chapman, M. F. Coomes, and T. C. Evans. Committee on Special Discussions: Drs. W. H. Wathen, H. M. Skillman, and J. N. McCormack.

Dr. McCormack then introduced Dr. Jerman Baker to the Society, who made a few timely remarks.

Dr. McCormack: I move that the Secretary of this Society be instructed, as early as practicable by circular letter or otherwise, as he may deem best, to proceed to organize the medical profession of Kentucky by the creation of medical societies in the various counties of this Commonwealth; that he be instructed to open correspondence with the profession at once, using the influence and prestige of this Society, and that some plan be devised by which in becoming members of the county societies the physicians will also become members of the State Society.

The idea of the State Society is to work to that end. We want to secure, if possible, such a comprehensive organization of the profession of the State as will embrace every reputable physician in it.

Seconded and carried.

Dr. W. O. Roberts, of Louisville, read a paper entitled "Nephrectomy for Sarcoma."* Dr. Roberts also exhibited the patient upon whom he had operated. The paper was discussed by Dr. Rodman.

Dr. J. N. Baughman, of Flat Lick, read a paper on "Fistula in Ano." [See p. 249.]

Discussed by Drs. Greenley, Carpenter, Yager, Roberts, Woody, Herndon, and in closing by the essayist.

*This paper will appear in the next issue of the *American Practitioner and News*.

DISCUSSION.

Dr. T. B. Greenley, Orell: I would like to emphasize the author's remarks in regard to operating on phthisical cases. Unfortunately I have operated on two, and I never could see any effort on the part of nature or any thing I could do toward reparation.

Dr. J. G. Carpenter, Stanford: If there is any man who should know how to treat rectal diseases it is the country doctor. Prescribe for no patient who complains of rectal irritation without a digital examination and ocular inspection. If there is a specialty that belongs to the general practitioner, it is that of rectal surgery. If there is a simple specialty, it is that of diseases of the rectum.

As to asepsis, we can have it in surgery of the rectum. If we purge the patient and diet him as he should be for a laparotomy, we can have primary union. I did that operation three weeks ago, and the sutures were ready to come out on the fifth day. In all cases of hemorrhoids and fistula divulsion of the sphincter and should be practiced to put the rectum at rest and to allay vesical irritation.

As to operation for fistula, only two months ago a patient came to me supposing he had incipient phthisis, hemorrhages from the lungs, with an enormous fistula and exudation into the ischio-rectal fossa. Three doctors pronounced it disease of the lungs, but the case turned out to be one of hypertrophic rhinitis, with enlargement of the third tonsil. By cauterizing the turbinated body and third tonsil the hemorrhages ceased. I operated on the fistula, and the operation has been a success. The enormous exudation had to heal by granulation, and the patient is now practically well.

As to the methods of operating for fistula, we can curette the fistulous tract by friction and overdistension, rubbing it with cotton with the finger or cotton upon a probe, swabbing the parts with a saturated solution of nitrate of silver or with carbolic acid. By so doing many of them will recover, as I have seen. Then we can curette the fistulous tract in some cases, making fresh surfaces, and uniting the lips with sutures, but I believe the best treatment of all is to lay the fistula open and use a Goodell, having the sphincter stretched, and, following this with the use of vaseline, the patient will get well in a few days. If the practitioner understands in rectal surgery that each individual case is a law unto itself, and the remedies suited to that case must be selected with wise discrimination, he will get good results.

Dr. F. J. Yager, Campbellsburg: I am pleased with the independence of Dr. Carpenter, but I have been practicing medicine for forty-six years, and I do not pretend to know all about fistula in ano. I do not pretend to know all about the idiosyncrasies that our patients seem to have. I do not profess to cure every case that I get hold of, yet I try very hard to do so. I am very glad we have specialists to whom we can refer these very intractable and obstinate cases, to men who know more about how to deal with

them than we do. With all due respect to the country doctors (and I am one of them), without lowering our capacity as country physicians, we do not have the same opinions in regard to the treatment of these cases, and it is well sometimes for us to send patients to specialists when we are in doubt as to what to do.

Dr. W. O. Roberts, Louisville: I congratulate the members of the Society who have had the pleasure of hearing this excellent paper. There are some points in it, however, upon which I have to differ with the author, but most of them, I am glad to say, I heartily indorse.

There is nothing more important than a thorough examination in all cases of rectal trouble. I say a thorough examination. I mean by that not a superficial one. When we find a man with fistula or with a pile, we should not be satisfied with that, but we should make a further investigation and see whether or not these troubles are not due to troubles higher up in the bowel. We very frequently meet with cases of hemorrhoids associated with stricture, malignant disease, or cancer of the bowel. Of course it would be perfect folly to attempt any treatment of the hemorrhoidal trouble so long as the others exist.

As to the examination, I think the best position in which to place the patient is on the side on which the fistula exists. This is especially important in the examination. In nearly all cases there is an internal opening, and I believe the cases that get well spontaneously or by curetting the fistulous tract are cases in which there is no internal opening. I have never seen a case where recovery took place without operation when there was an internal opening.

As regards searching for the opening, I think one of the great reasons why the internal opening is not often found is because the search is made too high up. I believe in ninety-nine per cent of the cases of fistula in ano the internal opening is within the verge of the anus. A probe is the best thing for finding the opening. I have never succeeded with injections. In searching for the opening we must be exceedingly careful and patient. Always have the finger of the left hand in the rectum, and change the curve on the probe every now and then, and finally, if there is an opening, it will slip into it.

As to the treatment, first of the abscess: If there is no internal opening, I believe if we lay the abscess open thoroughly, make a good free incision, clean out the abscess thoroughly, and then pack it with iodoform gauze, it will heal up from the bottom, and the patient will get well without any fistula. If there is an internal opening, I doubt whether this will take place. The treatment *par excellence* is the knife, and the sooner we use it the better. If you find an internal opening, operate at once. I have never yet had the misfortune to meet with a case in my own experience of paralysis of the sphincter muscle from simple division of it in the treatment of fistula. I know it does occur, and that when it occurs it greatly injures the muscle. Where there are a number of external openings it is safer to lay them

open. I have not derived any benefit from the use of injections. I use the peroxide of hydrogen frequently in cases of abscess where there is no internal opening, but I prefer very much that which is made by the Oakland Manufacturing Company. It contains much less acid and does not give the discomfort that the peroxide of hydrogen made by Marchand does.

Dr. Samuel E. Woody, Louisville: I wish to combat one idea indorsed by Dr. Carpenter, and that is the necessity of asepsis in operations about the rectum. It is unnecessary, and it is not feasible. I do not believe it is possible to get asepsis in rectal diseases, when there are constantly millions of the bacilli coli communis, besides other bacilli present, which we find in the alimentary canal. It is not practicable, and not necessary. Rectal tissue heals kindly. The blood and the nerve supply is extremely abundant. There is no branch in surgery so easy for the general practitioner as rectal surgery. Eliminate the great bugbear of the general practitioner, the microbe, and he has the courage then to undertake to perform rectal operations. The general practitioner has a right in not opening the abdomen where the admission of germs or their exclusion means death or life to the patient; but in rectal cases, where we have eliminated the fear of septic infection, we are not at all afraid of doing the patient any injury. Where we do not have the complex preparations to attend to and the numerous applications necessary to do complete aseptic work, the general practitioner should have no hesitancy in undertaking rectal surgery.

Dr. B. F. Herndon, Barbourville: Speaking of a free incision for the relief of fistula in ano, I would ask if the incision is made from the opening involving the sphincter muscle proper. If it is a fact, why not commence the incision from the point of the internal opening, so to speak, and instead of letting it come out at the sphincter muscle, let it come out just a little above it. I think the same good results would follow, and we would not have incontinence.

Dr. Baughman (closing the discussion): I thank the gentlemen for the compliments they have passed on my paper. One thing I want to impress is the idea that the originating cause of fistula is in an abscess of some kind, strumous or cold abscess, and that if we will open these abscesses thoroughly, just as soon as we have discovered pus and established free drainage so as to set up healthy granulation from the bottom, it is seldom we will have a fistula in ano as a result.

I did not give the subject as much space as I perhaps should have done. I went over only the most important points.

In regard to what Dr. Woody said about asepsis, I do believe that even in a rectal abscess or fistula in ano we can get perfect cleanliness, perfect asepsis. We can give the patient a purgative and entirely empty the alimentary canal, and we can then by the use of hot water applications get it in a perfectly clean aseptic condition. Then if we lock up the bowels and perform our operation we have no suppuration, and within four or five days we have union by first intention. The patient gets well without any foreign bodies having passed over the wound.

Dr. C. H. Todd offered the following, which was seconded by Dr. L. S. McMurtry:

Resolved, That Section 2, Article IV, of the Constitution, now revoked by resolution as recorded on page 10, Vol. 1, of the Transactions, New Series, be restored to read as follows:

Each officer shall be elected after recommendation by the Nominating Committee, which committee shall be appointed by the President, and shall consist of one member from each county represented, except Jefferson County, which shall have four members on said committee. The election shall take place at the annual meeting of the Society, on the third day of the session during the morning business hour, and each officer shall serve one year or until the election of his successor.

Dr. J. G. Carpenter, of Standford, read a paper entitled "Acute Lacerations of the Perineum," which was profusely illustrated. [See p. 253.]

The paper was discussed by Dr. R. T. Ramsey.

DISCUSSION.

Dr. R. T. Ramsey, London: I think the doctor deserves a vote of thanks for the able paper he has given us, and for the great pains that he has taken in showing up the anatomy of this important subject and the dangers we are to avoid in such cases. I think in every case of labor we attend, after the third stage of labor has been passed successfully, the index finger should be inserted into the rectum and perineal body carefully examined to find if it is unwieldy. From the practice I have had (although very limited as compared with some), I am pretty well satisfied it is a good thing to pass the index finger upon the usual rent, and unless there is considerable tear to the second or third degree I would not recognize it. We are too apt to suppose that there has not been sufficient rent in the perineal body to demand operative interference. Any rent from half an inch to an inch we consider will probably heal without repair. I think it is an important point to insert one finger into the rectum and examine carefully the perineal body. I think it is well to come prepared in every case of labor. I know physicians in my locality when they have happened to be out hunting and a case comes up and they are called in they are not prepared. They do not make a routine practice of using ergot, but rely entirely upon their hands to give them the assistance necessary. I have taken the advice of the best authorities, and go prepared for any emergency. If I am out in the country ten miles, I feel relieved if I have every thing that I might use in the case of an accident.

This is a very important subject, and any of us may meet with a case to-morrow, and we should know exactly the responsibility that devolves upon us in these cases. It is an important point that the doctor has laid before us to be profited by, and if we go away determined to learn that one

point and be able to cope with these accidents, I think we shall be paid for our visit to Shelbyville.

Dr. William Bailey, of Louisville, was appointed by the Chair to escort the newly-elected President to the platform.

Dr. Marvin was then introduced, an on rising to speak was received with great applause. He said :

My knees are not striking together, my gait is not staggering, and I am not too full for utterance, but I shall not afflict you with a speech. I would be as cold as a brick if I did not appreciate this honor. Any medical man might be proud to be selected as the leader in his community, his city, or in his State. You might have selected an older man, a bigger man, and a handsomer man, but you could not have selected one who would appreciate the honor more highly than I do.

Gentlemen, we have had many bright and shining lights in this chair, but let us not be satisfied. Let us press onward and make the 1895 meeting the best in the history of the Society. When I am in the chair I shall certainly try to give the practitioners in the country districts and towns the front seats. You shall have choice places at the '95 meeting.

As we are on the eve of our adjournment, and as we shall soon be widely scattered for another twelve months, let me tender each and every one of you my wishes for a very happy and a most prosperous year.

Dr. William Bailey, of Louisville, presented resolutions of thanks to the profession and people of Shelbyville for the generous hospitality enjoyed at this session. Unanimously adopted.

Dr. L. S. McMurtry, of Louisville, offered the following:

Resolved, That the Kentucky State Medical Society in annual convention assembled hereby tenders its thanks to His Excellency, Hon. John Young Brown, Governor of this Commonwealth, for his able and prompt decisions in support of the medical laws which have rid our State of quackery, and thereby promoted the welfare of the people and advanced the position of scientific medicine.

Adopted.

Dr. T. C. Evans, of Louisville, read a paper entitled "Tonsillar Hypertrophy," which was discussed by Drs. Carpenter, Woody, and Ray. [See p. 262.]

DISCUSSION.

Dr. J. G. Carpenter, Standford: The tonsil was made for a purpose, and as long as it is not diseased and does not interfere with any other portion of the body I do not believe in removing it. We must not go rabbit hunt-

ing every time we see an enlarged tonsil. While there are constitutional causes, and the hypertrophied tonsil is one of the factors of deaf-mutism, we must cure the constitutional vice and the hypertrophy will take care of itself. Hypertrophy of the faucial tonsils is dependent upon local disease in the naso-pharynx, and if you cure the disease in the nasal chamber or in the vault of the pharynx, the hypertrophied tonsil will take care of itself. Time and again have I seen hypertrophied tonsils subside to normal without any treatment. By proper treatment of the disease, straightening the septum, removing the occlusion, crushing the third tonsil, and properly spraying with mild, soothing astringent applications to the naso-pharynx, hypertrophy of the tonsil will subside without any other treatment. I have seen cases subside at the end of forty-eight hours, and within a week the patient would forget that he had enlarged tonsils.

Hypertrophy and hyperplasia are two different things. If you have the latter, you must remove it. If you have a foreign body, a fibroma, so to speak, it must be removed. The tonsil is a glandular organ. It is of the same variety as the lining of the nasal chambers and vault. In hyperplastic tonsils you may have dangerous hemorrhage. Not only are the mucous sacs infiltrated, but around them organization of plastic lymph has taken place. The arterioles can not retract and contract. If there is a spurting artery, you must either tie it or use torsion. In removing an hypertrophied tonsil, if I have profuse hemorrhage I use a hemostatic, opening the mouth wide, and the patient would not know he was having hemorrhage any more than having it from a tooth.

Dr. Samuel E. Woody, Louisville: I take issue with the essayist, and coincide with the last speaker. I believe tonsillar hypertrophy is secondary and always due to a strumous diathesis, which you know essentially consists in an increased vulnerability of the life of the tissues. Tissues that in ordinary individuals would resist irritation, in the strumous individual take on inflammation, and that inflammation has the character of chronicity and tendency to increase cell production. It is perfectly natural that the tonsils, which are lymphatic glands as well as racemose glands, which drain the territorial area most subjected to external irritants, that the structure should be chronically inflamed and should undergo rapid and cellular hypertrophy. It has been my observation that all cases of enlarged tonsils are strumous, either acquired or inherited, and the very first thing to do in curing a case of enlarged tonsils is to remove the cause, clear away the fountain head, and you will oftentimes cure the case. I treat enlarged tonsils just as I do the strumous diathesis. I give cod-liver oil, iodide of iron, and recommend a pure, unirritating atmosphere, free from dust or germs. In other words, I do all I can to abolish the causes of buccal and nasal irritation, then treat the membrane. The removal of the tonsils is one of the easiest of surgical procedures, and one of the most innocent I know of. I know of no lymphatic glands so easily and painlessly removed as the tonsils. They are easy of access, are only covered with one thin mucous

membrane projecting conveniently into the pharyngeal cavity. They are easily anesthetized by cocaine, after which we can introduce the instrument for their removal.

I had a little girl the other day in my office who had tonsillar hypertrophy. The child was very nervous. The mother was also nervous, and had to leave the room while the operation was being done. I swabbed out the throat, put my instrument on one side and snipped off about one third of the tonsil. The child scarcely felt it. I then removed the other one and the child has breathed easily ever since.

Dr. J. Morrison Ray, Louisville: I simply want to speak of one point in the paper, and that is with reference to the surgical treatment of hypertrophy of the tonsil. I think when we come to treat the tonsils it depends altogether on the kind of tonsil that we encounter, and our method of treatment must be governed accordingly. We frequently see a variety of tonsillar hypertrophy that disappears in the course of a short time without any surgical treatment at all, simply by the internal administration of the syrup of iodide of iron and cod-liver oil. I think the class referred to by the author is that in which the glandular structure contains a lot of fibrous tissue, where you pass your finger in contact with the tonsils, and instead of feeling a soft, mushy mass the tonsil is hard and moves in front of the finger. This variety of tonsillar hypertrophy requires for its relief surgical interference. I do not believe these can be gotten rid of by the internal administration of remedies.

As to what surgical procedure we shall employ, I think it depends to a great extent on the age of the patient. In children I remove the tonsils with the guillotine without fear of complication. When I encounter these in adults, I go at it with a great deal of timidity with the knife. Unless the child is the subject of a hemorrhagic diathesis, I think there is no danger in removal. When we want an immediate result it has been my custom to employ the galvano-cautery snare, or the galvano-cautery guillotine of Wright, which is an excellent instrument for the purpose. In this way the tonsil is removed with as little pain as by the knife or ordinary guillotine, and the hemorrhage following it amounts to very little or nothing. There is some danger of secondary hemorrhage after removal by the cautery, but these cases are exceedingly rare.

(TO BE CONTINUED.)

Abstracts and Selections.

EXPERIMENTAL TYPHOID FEVER.—Sanarelli publishes a third memoir on this subject (*Ann. Inst. Pasteur*) in which he argues strongly that his researches tend to prove that human typhoid fever is not a primarily intestinal affection. He insists first on the tolerance of the intestinal mucous membrane which may exceptionally be exhibited, especially in the case of relapses, where only the patches which escaped in the first attack suffer. This intestinal tolerance may be obtained experimentally without in any way altering the vulnerability of the organism generally to the virus. A quantity of sterilized culture of Eberth's bacillus sufficient to vaccinate the animal was injected by degrees into the stomachs of guinea-pigs, the necessary quantity being determined by simultaneous subcutaneous injection in other animals till these were fully vaccinated. The animals so treated were then inoculated with virus together with others to serve as controls. They died in the same time as these, but exhibited no abdominal symptoms, the meteorism, tenderness, and pain present in the latter being absent. *Post-mortem*, while in the control-animals abundant peritoneal exudation was found with typical intestinal lesions, in the others there was no fluid, and the intestines were perfectly normal with their mucous membrane intact. But, at the same time, the other mucous membranes were found congested, which goes to show, according to the author, that the immunity of the intestine results from the habituation of the cells which have eliminated the first poison. A similar immunity was obtained by the injection of putrid beef broth. As in vaccination by subcutaneous injection, the microbes, together with *B. coli*, tend to disappear from the intestines thus immunized; but on inoculation *B. coli* again becomes numerous and virulent, as in ordinary cases, although the intestinal walls have perfect immunity. Investigating the nature of immunity against typhoid, the author criticises and rejects the experiments tending to prove that the serum of immune individuals possesses bactericidal or antitoxic properties. First, as to bactericidal power: Animals vaccinated in the ordinary way were inoculated with virus. The first was killed after two days, and cultures made from the peritoneum were fatal to guinea-pigs in twelve to sixteen hours; cultures from the second, killed after three days, were fatal in ten to twelve hours; cultures from the third, killed after four days, were fatal in eight hours, the usual intestinal lesions following with marked intensity. Therefore in animals vaccinated against typhoid fever, so far from their serum being bactericidal, Eberth's bacillus flourishes and progressively augments in virulence. Secondly, as to antitoxic properties, vaccinated animals were found to be even more vulnerable to the toxin than unvaccinated, the hypothermia being more marked and regularly progressive. Further, guinea-pigs and mice were inoculated with the toxin mixed with serum of vaccinated animals. With

the exception of two mice (notoriously uncertain in reaction), they all died in the ordinary way. On the other hand, the activity of the phagocytes of vaccinated animals is found to be enormously increased. As stated, no peritoneal effusion is found, but the intestines are covered with a thin sticky layer, which the microscope shows to consist exclusively of leucocytes and endo-cellular microbes. The author concludes that *B. coli* and Eberth's bacillus must be considered as distinct varieties. Finally, the author claims that the biological process of human typhoid is to be explained by the knowledge gained by experiment. The earliest symptoms are *malaise*, fatigue, pains in the head and limbs; the intestinal symptoms only appear when absorption begins. The hyperthermia is a measure of the reaction of the organism to the poison, and if the bacillus of Eberth could fabricate its poison with the same intensity as the cholera vibrio in the human organism the disease would be rapid and apyretic as in the animals experimented upon.—*British Medical Journal*.

IODOFORM IN TUBERCULOUS PHTHISIS.—A Foxwell (*Birmingham Medical Review*) has had considerable experience of iodoform in the treatment of tuberculous phthisis during the last eight years, and on the whole he considers it the most satisfactory of all the antiseptic drugs which have been used in tuberculosis. He has examined his out-patient case-books for 1886, 1887, and 1888, but of the many instances in which iodoform was used as the main treatment, he could collect only 46 where the notes were kept with sufficient persistency to make them worthy of record. Of these, 12 were much improved, 15 improved, 11 remained the same, and 8 grew worse; that is, 59 per cent improved and 17 per cent grew worse. Of the 12 who much improved, 6 had reached the third stage, but only 2 of these had both lungs attacked, and only 1 among the earlier cases was so affected. Of the 15 who improved, 11 had reached the third stage, and 7 had both lungs involved. Of those who grew worse, 5 had both lungs attacked, and three of these had reached the third stage. Of the 11 who remained stationary, 7 had reached the third stage, and 5 had both lungs diseased. From these statistics it appears that the advanced cases did as well as the early ones. This the author thinks to be due mainly to the favorable nature of the advanced cases, these being mostly cases of localized cavitation or those in which considerable fibrosis had occurred. The unfavorable advanced cases doubtless felt themselves too ill to stand the exhaustion of out-patient attendance. The usual prescription was one one-grain pill, to be taken six times daily. The dose never exceeded that amount, and was occasionally less, the average being five grains daily. In three cases only were any symptoms of poisoning detected, and these were merely of a mild gastric nature. The author also tried the drug in conjunction with oil and tonics, and compared both classes of cases with those in which oil and tonics alone were used. The conclusion he arrived at after a three years' trial was that iodoform given by itself gave better results than any other drug or combi-

nation of drugs he had tried or seen tried. It soothed the nervous system of erethic subjects; it very greatly lessened cough and expectoration; it powerfully increased nutrition, the patients often becoming quite plump under its continued use; finally there was as great, if not greater improvement in the physical signs than the author had seen accomplished by any other mode of treatment, except that of climate and hygiene. Foxwell has since used iodoform for the cure of phthisis in some private patients, and in some hospital in-patients; and his later experience fully bears out his previous impressions. As regards mode of administration, the author believes it to be always safe to begin with two grains *t. d. s.* If the patient has difficulty in steadily taking this small dose it is useless to persevere any further with the drug. "Having satisfied yourself," says the author, "by three or four days' treatment that the daily dose of six grains can be well borne, order it to be increased by two grains every other day till thirty grains are reached. Keep the patient to this daily dose for at least three months, and at a somewhat lower level (should all signs of activity have vanished) for three months longer." If the patient does not strongly object, he always advises its continuance for a year. Foxwell has usually limited himself to a maximum dose of thirty grains a day.—*Ibid.*

A NEW SYMPTOM OF CANCER.—G. Bogdan (*Bull. de la Soc. des Méd. et des Naturalistes de Jassy*) relates the case of a woman, aged forty-eight, who suffered from cancer of the stomach. The disease had gone through a long period of latency. The patient presented on each cheek a patch of wine-red discoloration formed by the dilatation of the superficial venules; the stain showed out sharply against the pale yellow of the surrounding skin. On the strength of this symptom alone Bogdan was able to make a diagnosis of probable cancer at a time when there was yet no other manifest sign of that affection. He looks upon such superficial varicosities on the cheeks as a valuable help to the early recognition of certain cancers; he has seen it in about two thirds of the cases of cancer which have come under his observation. He says it is particularly frequent in cases of epithelioma of the stomach and uterus, but less common in malignant disease of other organs.—*Ibid.*

TRANSITORY BLINDNESS IN UREMIA.—Max Rothmann (*Berl. klin. Woch.*) remarks that acute blindness is one of the most uncommon symptoms of uremia. In rare cases it may be the only symptom. It is mostly bilateral. The ophthalmoscopic examination is usually negative. Sometimes the arteries appear narrow, or albuminuric retinitis is present. If it lasts long optic atrophy may ensue. If the pupil reaction to light remains, the prognosis is good. The localization of the disease is disputed. Temporary edema of the papilla, a lesion between the corpora quadrigemina and the locality where the perception of light is effected, passing edema in the visual corticle centers are among the views advanced. The author refers to the

identical sudden loss of sight after hemorrhage, in which changes have been found in the optic nerve. He then records a case in which granular kidneys were found after death, and in which the patient was seized two months previously with sudden and temporary blindness, affecting first the left and then the right eye. It subsequently recurred in the left eye. Death was due to phthisis. The fibers of the optic nerves were healthy, but the sheath was thickened, as well as the vessels in the nerves. Although the case is not absolutely typical, the author thinks the amaurosis of uremic origin. In the right eye the light reflex disappeared, and returned as the sight improved. Here the blindness was due to a temporary edema of the optic sheath, without permanent change in the nerve fibers. Thus the pupil reaction can be maintained, though the lesion is peripheral. The author concludes that (1) with severe nephritis blindness may occur with or without other uremic symptoms, and is due to edema of the optic sheath; (2) the light reaction may be preserved, lessened, or abolished without making this compression theory impossible; (3) the prognosis of the lost reflex is not absolutely bad; and (4) after the return of sight the nerve fibers may be intact, or degenerate only in the periphery.—*Ibid.*

GYNECOLOGICAL GYMNASTICS.—(*Union Médicale*, May 24, 1894.) This treatment, invented by a Swede, Th. Brandt, properly consists of two equally important parts—gymnastics and massage. Unfortunately, massage has hitherto usurped the most important rôle, and the system has thus lost a great part of its value. The best results are only obtainable by a combination of both methods, but gymnastics alone may be of great service. Practiced regularly and intelligently, they often cure functionable troubles, which, neglected, cause serious diseases. These movements are better seen than described, and their execution requires the greatest care and attention on the part of physician and patient. Nevertheless, this system of gymnastics can be learned by any physician who will take the trouble, while massage requires special aptitude. The patient may be allowed to practice some of the movements at home, but others require a certain degree of knowledge and experience. This method has nothing in common with ordinary exercises of skill and strength. Its aim is not to tone up the muscular system, but to produce remarkable local effects. By its different sets of movements blood may be drawn to or from the pelvic organs at will. What may be called the decongestive movements are indicated in all forms of pelvic disease, while those of opposite character are only beneficial to young girls at the formative period; to women whose reproductive organs have remained undeveloped, or to very stout women whose menses have almost disappeared. In the last class of patients, they should be combined with a severe diet. The aim of the decongestive movements is relaxation of the abdominal wall, and, therefore, the sternal extremity and the symphysis pubis should be brought near together, while the dorsal muscles, the posterior muscles of the thighs, and the femoral abductors are exercised. When

the congestive movements are indicated the object is, on the contrary, great tension of the abdominal wall, and the symphysis and the xiphoid cartilage must be separated as far as possible, while every exercise tends to increase this tension. The exact physiology of this system of gynecological gymnastics is still to be determined, but it has already yielded excellent clinical results.—*Occidental Medical Times.*

THE VAGINAL SECRETION OF PREGNANT WOMEN.—König (*Centralblatt für Gynakologie*), after reference to the investigations of Doderlein, Winter, Steffek, and others, who claimed to have found pathogenic micrococci, particularly the staphylococcus albus and aureus, as well as other pus-producing microbes, in the vaginal secretions of women after labor, relates the results of his own experience in one hundred cases of women aseptic at the period of labor. He claims to have found in the lochia the streptococcus most frequently, and but seldom the staphylococcus aureus, and never the staphylococcus albus. After considering minutely the reaction of the vaginal secretion, which in three hundred pregnant women he found to be distinctly acid, he concludes that in pathological conditions the secretions attain a much higher degree of acidity, so that the streptococcus pyogenes can hardly thrive therein; at least he was unable to obtain cultures of this germ. The author further concludes that the vaginal secretion of every untouched pregnant woman contains nothing pathogenic, the thrush or gonococcus germ excepted. Both are bacteria which upon the usual media of culture are aerobic at the body temperature. The vagina of every untouched pregnant patient is therefore aseptic.

Vaginal injections of antiseptics he considers dangerous in the ordinary patient, and they may chemically lessen the resistance of the tissues to bacteria, and may increase the intensity of septic endometritis by washing bacteria into the uterine cavity.—*American Journal of Obstetrics.*

METHODS OF CONTROLLING HEMORRHAGE IN AMPUTATION OF THE UPPER EXTREMITY.—Keen reports one case of amputation of the entire upper extremity, including the scapula and clavicle, and four cases of removal of the arm at the shoulder-joint. This paper has especial reference to methods of controlling hemorrhage. In cases of simple amputation at the shoulder-joint, the axilla not being invaded, the best method of compressing the vessels in the axilla is that devised by Wyeth, in which a piece of elastic tubing is wound tightly round the axilla and shoulder above two stout pins passed through the limb in front of and behind the joint. Elastic compression of the vessels, the author holds, is by far the most secure method in all amputations. In the limbs they can be secured very readily by the ordinary Esmarch methods, but at the hip and the shoulder the difficulty has always been to retain the elastic tubing in place. The only object of the pins is to prevent this tubing from slipping. In cases in which the axilla is invaded so high that Wyeth's pins can not be used, the author

would practice Delpech's method of cutting down on the axillary artery through the pectoral muscles, and applying a preliminary ligature to this vessel. The advantages of this procedure are: (1) that it gives us wide access to the axilla, especially to its apex where the vessels lie; (2) the surgeon can determine with ease how far and how great is the invasion of the axilla. The author has practiced this method with success in one case, and the ease with which the operation was done and the paucity of the hemorrhages during its performance have led him to think very highly of it. In removal of the whole of the upper extremity with the scapula, Berger's operation, in which a portion of the clavicle is resected and the subclavian artery and vein are divided between double ligatures before the flaps are made, is commended as by far the preferable method. In the author's case the patient was out of bed eight days after the operation. The frequency of recurrence of malignant disease after articulation at the shoulder, and the low mortality after removal of the scapula with the upper limb, have led Keen to agree with Berger that in all cases of malignant disease of the upper end of the humerus, or even of its lower end when it is already diffused, the surgeon should perform the latter and more radical operation.—*British Medical Journal*.

A CASE OF QUININE AMAUROSIS.—Dr. J. H. Claiborne reports a case of total blindness from an excessive dose of quinine. The patient poured the palm of his hand nearly full of two-grain quinine pills, which he took a short time before going to bed. He remembered nothing after going to sleep until he awoke, a few days later, perfectly blind. The optic disks were pearl white and the vessels much smaller than in health, but not so small as they subsequently became. He complained of seeing many-colored figures that changed their hues. The sensation of red predominated. The pupils were fixed and moderately dilated. Eight days after taking the quinine he had absolutely no light perception. About two years later the patient with the right eye could see the hand six feet distant, while the left could only perceive light. The author draws the following conclusions: (1) Quinine in toxic doses may produce blindness. (2) The toxic dose is distinctly indeterminate. (3) The duration of the amaurosis varies largely. (4) The field of vision remains contracted. (5) Central vision usually returns to the normal. (6) There is color-blindness at first; the color perception is ultimately restored within the central field. (7) The ophthalmoscopic picture is that of white atrophy. (8) Experiments on dogs show that there is atrophy of the entire optic tract. (9) The same experiments show that the cells of the cuneu are probably not affected. (10) Treatment is of no avail.—*New York Medical Journal*.

THE AMERICAN PRACTITIONER AND NEWS.

"NEC TENUI PENNÂ."

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D. W. YANDELL, M. D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

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THE ANTITOXINE CRAZE.

From what the newspapers have been saying one would suppose that science had just unearthed a new specific remedy for, or perhaps prophylactic against, diphtheria. Of course every medical and non-medical lover of his kind would wish the "news" true, since one of the most terrible scourges of the human race would thereby be robbed of its power to harm, and medicine would take higher rank as a beneficent calling and a step forward in scientific importance.

But, alas! there is nothing new in the alleged discovery; nor has it been proved that antitoxine stands upon any better basis to-day than the Pasteur's similar "attenuations," or Koch's tuberculine.

These great men have, however, suggested a line of inquiry which every scientific physician hopes will lead to such discoveries as will place in his hand specifics wherewith to deal with all the acute infectious and contagious diseases, thus placing therapeutics among the exact sciences, and ringing the death knell of quackery, fraud, and fad.

But such a consummation can not be expected as a sudden revelation, no matter how high the endowments of the workers in this field. It will come, if it comes at all, as the result of many long years of zealous, painstaking toil. The findings of one generation must be handed down to succeeding generations, and the final so-called discov-

erer will find perhaps that he has discovered nothing, but only that he has completed what his predecessors began and set in motion.

Meanwhile let us not forget that after all the real millennium must come through the perfect work of hygiene, and not through specific medication or prophylaxis. It would be well for the enthusiastic popular writers, who hope and claim so much for antitoxines, *id omne genus*, to remember that yellow fever and cholera can be effectually barred out of the country, that tuberculosis can be stamped out of existence, and that when politicians, socialists, and moralists come to be as much in earnest in the things that make for the physical good of mankind as they are in the things which make for material prosperity, venereal diseases will be wiped off the face of the earth.

The following from the Philadelphia Medical News is an exact statement of the scientific and historical status of the diphtheria antitoxine sensation:

NEWSPAPER MEDICINE.—The daily press is creating quite a sensation upon the announcement of the treatment of diphtheria by means of toxins isolated from cultures of the diphtheria bacillus. If our newspaper friends had followed the investigations that have been going on in this department of science for the last four or five years, or had taken the pains to have consulted any intelligent medical man who kept himself informed on the progress of his art, there would have been no occasion for the sensational reports that have been published, and that can do only harm, just as occurred in the instance of tuberculin. Now the essence of the recent ferment is that a number of Koch's pupils, including Behring, Kitasato, Wassermann, Brieger, and Ehrlich have for a number of years been at work upon the subject of isolating from cultures of diphtheria bacilli a substance that they hoped would be capable, both of conferring immunity to diphtheria and of curing the developed disease, and from reports in current medical literature it would appear as if some measure of success had been attained in these directions. The line of work is no longer novel, and is comparable to that pursued by Pasteur these many years with hydrophobia; by Ferran, nearly ten years ago, and by Haffkine and others more recently with cholera; by Koch with tuberculosis; by E. Fraenkel with typhoid fever; by the Klemperers with pneumonia; by Tizzoni and Cattini with tetanus. The results, however, can not yet be said to be final or conclusive, and it will be well to withhold a verdict until sufficient data have been collected on which an intelligent opinion can be based. The outlook for specific medication in the not very remote future is rather encouraging than otherwise, but there is no reason to believe that true scientific interests will be furthered by the periodic sensational discoveries of our friends, the newspapers.

Notes and Queries.

Editors American Practitioner and News:

A CASE OF APPARENT HYPOSPADIAS CURED BY AN OPERATION.—The following case may be of sufficient interest to find a place in your valuable journal:

Mr. H. W., aged twenty years and six months, single, presented himself at my office complaining of a peculiar malformation of the penis, interfering with both the functions of micturition and coition.

A thorough examination of the organ was made. The glans was found considerably atrophied and almost bloodless from constriction of the prepuce. A hypospadias glandis and what might be called an antevergio glandis were also found. The patient complained of the backward tendency of the stream on urinating, and of the extreme anteverision of the glans on erection, standing at almost a right angle to the body of the organ. This was seen to be due to shortness of the frenum as well as to the constriction of the prepuce when retracted, it being resisted by the corpora cavernosa while compressing the more yielding spongiosum, thus virtually shortening the frenum still more by making an angle in it. The operation of circumcision with dissecting back of the frenum for about three fourths of an inch was decided upon, and after obtaining the patient's consent, this was done on August 27th at my office, Dr. T. H. Baker assisting.

The remarkable feature about the case, and the one forming the principal reason for reporting it, is that after the frenum had been dissected back, thus liberating the glans, a very particular part of the operation by the way, as there was danger of entering the urethra as well as button-holing the flap, the hypospadias was seen to have disappeared, thus showing that it had been only an apparent one caused by the frenum's pulling on the lower angle of the meatus until the latter seemed to extend to the end of the glans.

The operation was done under cocaine, a four-per-cent solution being used; and in this connection it gives me pleasure to publish a useful suggestion made by my assistant, which I followed, viz., to inject the cocaine before applying the ligature, thus having the local circulation to assist in its distribution. This method, in connection with the previous insertion of a cocaine-soaked cotton pledget into the meatus, so as to make the introduction of the hypodermic needle painless, gave entire satisfaction, the patient experiencing no pain whatever during the entire operation, and only having a slight "dry taste" in the mouth.

It is scarcely necessary to remark that thorough asepsis was observed throughout, and after the usual preliminary scourings nothing but boiled distilled water was used during the operation, and nothing but boric acid as a subsequent dressing.

The patient, who lives several blocks from my office, walked home after

the operation. He was given chloral hydrate and sodium bromide, fifteen grains each, for the first three nights on retiring.

He was instructed to wipe dry the glans after urinating, and before raising the organ, to prevent contamination of the dressings, and was given the following prescription as a further precaution :

R	Kalii acet.,	} āā . . . . .	. ʒij ;
	Kalii cit.,		
	Olei santali, . . . . .		. ʒiiss ;
	Syr. aurantii, . . . . .		. ʒij ;
	Aque dest., q. s., . . . . .		. ʒviij.

Sig: Teaspoonful every four hours. Shake well before using.

On the third day after the operation he went out, and on the 18th day of September the last dressings were removed, which marks a very rapid recovery considering the comparatively large surface caused by dissecting back the frenum, which was left to heal by granulation, and there was not an untoward symptom during the entire time. The result is a perfect one, the patient being now in possession of an organ to which it would be difficult for the most fastidious to find any objection.

Yours truly,

NATHAN HERMAN, M. D.

1559 Story Avenue.

Editors American Practitioner and News:

I notice at pages 190 and 191, your issue of September 8th, of *The American Practitioner and News* does me an injustice, unintentionally I am sure, in the report of my concluding remarks in the discussion of Syphilitic Diseases of the Eye at the last meeting of our State Medical Society.

I am made to say, "Retinitis and optic neuritis are common in acquired syphilis, and the apoplectic form of retinitis seen in syphilitic subjects is not seen in acquired syphilis." I said just the opposite of apoplectic retinitis. It is seen in acquired syphilis only. I stated optic neuritis is common in acquired syphilis, following in the wake of iritis, both belonging to the secondary phenomena or the early tertiary period of syphilitic evolution. The language of the twenty-second to the twenty-fifth lines of your report on page 190 does not convey this idea.

The report of the case in the next paragraph, to which I invited Dr. Cowan's attention, is so incomplete as to be misleading. I did not say, "A discomfort is created in the ears of children who learn to talk." The point I made was this: The discomfort created in the ear by stenosis of the eustachian tube in cases of pharyngitis is always aggravated by attempts at talking, and a child having once learned to talk becomes a deaf mute by a neglected pharyngitis complicated by extension of the inflammation into the walls of the eustachian tube. Then follows the description of the condition of the child at Georgetown.

Speaking of the relative number of cases of retinitis pigmentosa at the institution for the deaf and dumb at Danville, I said, I take it for granted

that the children in that institution, as in most other eleemosynary institutions, are generally the progeny of parents below the ordinary circumstances of life. In this class I do not think one in two hundred subjects more than a fair average in the proportion of cases of retinitis pigmentosa, or at least some form of pigmentary degeneration of the retina, following either choroïdo-retinitis or that distinctly characteristic form which begins in the periphery of the retina and advances along the course of the retinal veins until the whole field of vision is blotted out by atrophic changes of structure in the retina. I mentioned the distinction drawn by McNamara and Gradle between those forms described by Hutchinson and Galezowski, and expressed the belief that that form which is associated with circumscribed choroiditis yields to antisyphilitic treatment, while the other form, in which no actual inflammatory changes are seen in the choroid, the pigmentation of the retina appearing as a slowly developing degeneration, is of obscure origin, and may or may not be due to consanguineous relation of parents.

I deem these corrections necessary to a proper understanding of the report, and will thank you to give them a place in your next issue. I am, very truly yours,

DUDLEY S. REYNOLDS.

THE following constellation of brilliant scintillations is just now in the zodiac of the medical heavens:

A GRIM VIEW OF IT.—The death of an ossified man in Tennessee is reported. He died hard.—*Chicago Tribune*. This is as bad as the man who swallowed a thermometer and died by degrees; it suggests also the case of the consumptive undertaker who died of a coffin.—*Medical Record*. These remind us of a man who choked while eating an apple, and died of appleplexy.—*National Medical Review*. It was in a St. Louis hotel that a Pike County farmer blew out the gas, and died from gastritis.—*Meyer Brothers' Druggist*. Not any worse than the man struck by an engine; verdict, died from locomotor attacksia.—*Montreal Pharm. Journal*. Still worse the case of that pie-eat-ing dyspeptic of Tiflis, for he died of piemia, superinduced by typhilitis.—*Gaillard's Med. Journal*. The other day a negro in Southern Georgia ate six watermelons. He died of meloncholia. *Atlanta Med. and Surg. Journal*.

Very good; but have you ever heard of the circus man who was accidentally sat down upon, during a performance, by the largest pachyderm in the menagerie. He died of *elephantiasis*.

Special Notices.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION. Twentieth Annual Meeting. Hot Springs, Ark., November 20, 21, 22, 23, 1894.—In order to properly accommodate conventions political, conventions theological, conventions medical, or conventions anything else, the city assuming the responsibility should possess not only the advantage of accessibility, not only facilities for lodging, feeding, and entertaining large bodies of men in an agreeable and satisfactory manner, but it should, if possible, present conditions and surroundings germane to the object of the gathering. What more fitting than for the doctors to assemble at Hot Springs, the great national hospital and sanitarium? Where else can they find such an aggregation of afflicted so keenly interested in the results of their consultations and deliberations?

Hot Springs is an ideal place of meeting, and it will be more than passing strange if the Twentieth Annual Assembly of the Mississippi Valley Medical Association does not prove the most interesting and most valuable in the history of the organization. Its location and intimate connection with the great railway systems of the Central, Western, and Southern States make Hot Springs easily and quickly accessible to all members of the Association; its scores of excellent hotels promise ample accommodation, without crowding, for all who may attend, and at prices suitable to all pockets; its hospitable citizens extend a welcoming hand, and are exerting themselves in every direction to make the occasion a pleasant and profitable one.

The time of the meeting, November 20th to 23d, could not have been better chosen. While the weather in the North is becoming wintry, the climate here is mild, the days are bright and pleasant, and all the surroundings cheerful and attractive.

For full particulars call on or address Bissell Wilson, 304 West Main Street, Louisville, Ky.

COCA ERYTHROXYLON.—We need not enter into a full description of the history of the Erythroxyton Coca, as we believe that most medical men are fully acquainted with the principal facts concerning the plant. We may, however, recall to mind that the leaf is the only part of the plant used. Very much depends, therefore, upon the plucking of the leaf, and the time at which it is plucked; the subsequent care of the leaf being matter of considerable importance, and affecting very materially the preparations made from it. M. Mariani was the first in Europe who took up the study of the plant, and over thirty years ago commenced manufacturing for the medical profession the various specialties associated with his name, viz., "Vin Mariani," "Elixir Mariani," "Pâte Mariani," "Thé Mariani," "Pastilles Mariani," etc., preparations which are known all over the world, and which have acquired their well-known reputation by their purity and efficacy. The stimulating and strengthening property of the leaf in its natural state has been tested by experienced travelers and botanists during several centuries, and it is this invigorating property which the physician wishes to bring into use, and which he is enabled to do in a palatable form by means of "Vin Mariani," this wine being indicated where there is great depression, long continued exhaustion, and where a special stimulative action is desired. "Vin Mariani" is agreeable, palatable, imparting by its diffusibility an agreeable warmth over the whole body, and exciting functional activity of the cerebro-spinal nerve centers. We have frequently prescribed this wine, and we can, from practical experience, recommend it.—*The Provincial Medical Journal, London, Eng.*

THE Phosphates of Iron, Soda, Lime, and Potash, dissolved in an excess of Phosphoric Acid, is a valuable combination to prescribe in Nervous Exhaustion, General Debility, etc. Robinson's Phosphoric Elixir is an elegant solution of these chemicals (See advertisement.)

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

VOL. XVIII. LOUISVILLE, KY., OCTOBER 20, 1894.

No. 8.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

CONTAGIOUS EYE DISEASES AND PREVENTABLE BLINDNESS. THEIR ETIOLOGY AND THE METHODS FOR THEIR PREVENTION.*

BY J. MORRISON RAY, M. D.

Clinical Lecturer on Ophthalmology and Otolaryngology, University of Louisville.

The prevention of disease must always be with us the most important of our duties. While the performance of some masterly operation will give much reputation to the surgeon, or the skillful conduct of a serious attack of illness will add greatly to the renown of the practitioner, the prevention of epidemics or the enforcement of rules whereby thousands can be saved from the spread of contagious diseases is far more honor. The work of Jenner and his followers has added more to human life and happiness than the combined work of the world's greatest surgeons. Therefore any methods that have for their aim the prevention of disease, or the establishment of principles by which the dangers of contagion can be lessened, should attract the attention not only of physicians, individually, but of their medical organizations.

Among the large class of the afflicted with whom medical men are daily thrown in contact none deserve more attention and consideration at their hands than the blind.

When the statement is made, based on statistics gathered from reliable sources, that blindness is on the increase, and that of this number

* Read before the Kentucky State Medical Society, June, 1894. For discussion see page 302.

nearly thirty per cent are blind from diseases that are almost absolutely preventable, it is time that the subject should be considered both in a scientific and legislative manner, and the profession and the people made familiar with the character of such diseases and the best methods for their prevention.

Dr. Howe, of Buffalo, N. Y., has collected the statistics from the census bureau and shown that in 1870 the United States, with a population of 38,558,371, contained 20,320 blind; in 1880, with 50,155,783, contained 48,929 blind; in 1890, with 62,622,250, contained 50,568 blind. These reports show a surprising increase from 1870 to 1880, the population during that time increased 30.09 per cent, while blindness increased 140.7 per cent; from 1880 to 1890 the population increased 24.86 per cent, and blindness 3.3 per cent. The difference between the returns for these two decades is certainly in error, and of little importance from a scientific standpoint.

Returns from the State of Kentucky for 1880 show a population of 1,648,690, with 2,116 blind; for 1890, 1,858,635, with 1,976 blind, an increase in population of 12.12 per cent, and a decrease in blindness of 6.6 per cent.

Prof. B. B. Huntoon informs me that he obtained from the census bureau the names of nine hundred blind under twenty years of age, and on investigation found that a large proportion of the names and addresses were improperly given, and that other diseases were classified under the head of "blindness." Therefore such returns are not to be relied upon.

The kind of statistics that concern us most are those relating not so much to the number of blind but to the causation of blindness, and particularly to those the result of communicable diseases. In Europe a number of such examinations have been made. Fuchs found in the blind asylums of Germany 25.83 per cent, and in Austria-Hungary 20.47 per cent were the result of contagious eye diseases. Such statistics do not seem to have been extensively collected in this country. Howe, in the New York State Institution for the Blind, with 128 inmates, found 23.4 per cent blind from purulent ophthalmia of the new-born. Prince, in the Illinois State institution, with 222 inmates, found 62.9 per cent blind as the result of contagious eye diseases.

I have recently, through the courtesy of Professor Huntoon and the assistance of Dr. W. O. Bailey, examined the pupils of the Kentucky Institution for the Education of the Blind. Of 153 examined 119 were

white and 34 colored. Of this number 36.6 per cent were blind from diseases classified as preventable. The relative percentage of the white and colored is quite noticeable; of the latter 23.6 per cent, and of the former 40.3 per cent were the result of communicable diseases. Following out the proportion shown by this examination, there are of the 1,976 blind in Kentucky in 1890, 723 cases doomed to lifelong darkness as a result of diseases that experience has proven to be preventable.

It may be broadly stated that all inflammations of the conjunctiva accompanied by the formation of a secretion are contagious; the varieties that lead to serious results are, in the order of their frequency, first, ophthalmia neonatorum, or the purulent conjunctivitis of the new-born; second, trachoma, or so-called granular lids and its sequelæ; third, purulent conjunctivitis of adults, or so-called gonorrheal ophthalmia.

The unfortunate results of ophthalmia neonatorum are observed not only by the eye specialist, but by every practitioner doing extensive obstetrical work. It is due to contamination during birth, and occurs in cases where there has been absolutely no history nor possibility of gonorrheal infection.

Trachoma or granular lids is an exceedingly contagious form of eye disease, and frequently infects many members of a family or public institution before its dangers are realized. Many do not comprehend the fact that this form of eye disease is communicable, and by the use of roller-towels and universal wash-basins many cases of blindness result. Thus I have seen it occur in orphan asylums, leading to extensive destruction of sight in some, and in others impaired vision that later in life detracts from their capacity to earn a livelihood.

Gonorrheal ophthalmia, the third variety, rapidly leads to destruction of sight, and is due to direct infection, in most instances the result of uncleanness, ignorance, and neglect. Occasionally cases of purulent inflammation are encountered in which there is no history of gonorrheal infection, and where the specific organism is absent. Yet experiments have failed to produce such symptom by inoculation with pus of a non-specific character.

The prevention of the spread of trachoma and gonorrheal inoculation of the conjunctiva must be accomplished by educating the people as to their danger, and by isolating those already infected. All residential schools, orphan asylums, and eleemosynary institutions generally, should have the conjunctiva of all applicants for admission thoroughly examined before they are allowed to enter.

Ophthalmia neonatorum is the variety of contagious eye disease I wish particularly to emphasize, and to claim that experience and practice has shown that this class of cases can by proper methods be prevented. Horner has shown that since 1865, when precautionary measures were instituted in Switzerland, not a single case of blindness from purulent ophthalmia of the new-born has applied for admission into the State blind institution under his control.

Prophylaxis was early recognized as possible in these cases. Gibson in 1808 proclaimed the importance of such measures, and stated that the following methods should be employed: (1) Control the vaginal discharges as early as possible during pregnancy; (2) at the time of delivery remove the injurious secretion from the vagina; (3) immediately after delivery clean the eyes of the infant with a fluid which shall remove the injurious material or destroy its action.

Various means to accomplish these results have been tried since that time, such as irrigating the vagina with different antiseptic solutions before and during labor, and thoroughly cleansing the eyes as soon afterward as possible. Notwithstanding these precautionary measures numbers of cases were still found to appear. Credé, after trying such methods, found that the best results were obtained by the use of nitrate of silver dropped into the eyes soon after birth. The steps he employed were as follows:

After the child has been washed in the usual way the eyelids are cleansed with a piece of cotton dipped in clean water and a single drop of a two-per-cent solution of silver nitrate is let fall upon the eye between the lids. While some slight redness and congestion of the lids may follow such treatment for a few days, no serious consequences have been known to follow.

The results obtained by this method justify its adoption by all maternity hospitals, and also in private practice where there is a suspicion of gonorrhea or a profuse leucorrhœal discharge. Credé reduces his percentage of cases of infection from 10.8 per cent to .01 per cent by this method. Haab has shown that it reduced the number of cases from 9 per cent to 1 per cent. At the Dresden Lying-in hospital out of 1,002 cases only 7, or .69 per cent, contracted ophthalmia blenorrea, while at the Louisville City Hospital, where only cleanliness is used, from inquiry I find that about one in every six is followed by purulent infection. Fuchs, in his prize essay on blindness and its prevention,

gives an extensive table showing the results of cleanliness and the Credé method with the result far in favor of the nitrate of silver.

What stronger proof can be offered than these figures, showing as they do the almost complete eradication of such a formidable disease; one that under the most careful and scientific treatment leads to blindness in many cases. It is well known by ophthalmologists that, when it occurs in a marasmic, delicate, or premature child, blindness from sloughing of the cornea is sure to follow. Treatment by thorough cleansing and nitrate of silver to control the pus flow may lessen its ravages when once established; but how much better are measures that, while offering immunity, subject the patient to no danger.

In England, as a result of agitation and instruction of physicians and nurses upon the dangers of purulent conjunctivitis in the newly born, there has been a decided lessening in the number of blind. In 1871 there were in the United Kingdom 1 blind to every 1,031 of population. In 1891, 1 to 1,235.

From an economic standpoint the subject of contagious blindness is a most important one. Assuming that the census returns from the State of Kentucky are correct, and taking the percentage of blind from contagious diseases now in the State institution, and apply it to the 1,976, as shown by the returns for 1890, there are in this State 723 cases of blindness due to preventable diseases. Thus there is lost to the community not only the earning capacity of these 723 persons, but, at the rate of \$280 per head, as it now costs for their education, over two hundred thousand dollars annually.

Many cases of labor are in the hands of nurses and ignorant midwives who know nothing of prophylaxis or the treatment of eye inflammations in the infant, yet, when the disease shows itself in the first few days after birth, advise the use of breast-milk or poultices, and when the physician is called to the case the eyes are irremediably lost. Recognizing this fact, many of the foreign countries and six States of the Union have passed laws requiring nurses and midwives when they encounter such cases to report them immediately to a qualified physician.

The American Ophthalmological Society and the American Medical Association are urging the passage of laws regulating the practice of nurses and midwives in their care of the eyes of infants, and it is at the request of the chairman of a committee from these societies that I have brought up the subject for discussion.

The only sure way to accomplish results is by legislation. Such a law Dr. Howe, the mover in this reform, succeeded in getting passed by the legislature of the State of New York. It is as follows:

"The people of the State of New York, represented in Senate and Assembly, do enact as follows:

"Section 1. Should any midwife or nurse having charge of an infant in this State notice that one or both eyes of such infant are inflamed or reddened at any time within two weeks after its birth, it shall be the duty of such midwife or nurse having charge of such infant to report the fact in writing within six hours to the health officer or some legally qualified practitioner of medicine of the city, town or district in which the parents of the infant reside.

"Section 2. Any failure to comply with the provisions of this act shall be punished by a fine not to exceed one hundred dollars, or imprisonment for six months, or both."

While such a law does not deal with members of the medical profession who may neglect such cases, yet the fact that the subject has been of sufficient importance to be legislated upon will impress them with the gravity of such cases and the necessity for prompt action in their care.

A law similar to that in force in the State of New York has been drafted by the committee from the American Medical Association, and it is asked that this Society take such action as may bring about its adoption by the legislature of the State of Kentucky.

While many may urge that it is not necessary in this State because most cases of labor are first seen by physicians, yet as foreign immigration increases midwives multiply, and such action will tend to attract attention to the dangers of such a disease, and some helpless infant be saved from hopeless blindness, and the State relieved of the burden imposed thereby.

LOUISVILLE.

CONSANGUINEOUS MARRIAGES A CAUSE OF TUBERCULOSIS.*

BY JOHN G. BIRCHETT, M. D.

In speaking of tuberculosis in this connection I shall not differentiate it from scrofula, for scrofula is a tubercle lymphoma; but tubercle as a heteroplastic growth has also "the prejudice of malignancy," which does not belong to scrofula. Both, generally speaking, are diseases of extra-uterine life, and if they be hereditary, a fact that may not be disputed, they are not congenital. It is hereditary, not as a disease but as a disposition. This question of heredity may be solved by cellular pathology. The tissues are the causes of the disposition of the hereditary vulnerability, and the younger and more immature they are the easier will this vulnerability betray itself at a suitable opportunity. In this connection it is worthy to note a disposition to tuberculosis always signifies a disposition to inflammation. In a great many cases I have observed in consanguineous marriages, without any trace of struma or tuberculosis in the antecedent history of either parent, their offspring would show unmistakable symptoms of tuberculosis and often succumb to the ravages of that disease.

CASE 1. D. B., a magistrate and farmer, married in 1852 his second cousin; had six children, four boys and two girls; his wife died of typhoid fever; oldest son died, aged twenty-three, of tubercular meningitis secondary to pulmonary tuberculosis; second son died, aged eighteen, of pulmonary tuberculosis; third son died, aged three years, with tubercular meningitis; fourth son yet alive but has scrofula; oldest daughter married, has two children, boy and girl; the girl is apparently healthy; the boy has Potts' disease; second daughter married, and died with pulmonary tuberculosis; left one child, a girl, hard of hearing, very dull, and has chorea.

D. B. married the second time; has four children by his second wife, all very healthy.

CASE 2. J. B., a farmer, married in 1858; had three children by his first wife, two girls and a boy; all healthy and married; all have children that are healthy. Married his second wife in 1864, his first cousin; had four children, all boys; one died at four years of age with tubercular meningitis; the other three yet living, one is feeble-minded, twenty-two years of age, the other has pulmonary tuberculosis, and the fourth son, eleven years of age, is apparently healthy.

*Read at the June meeting of the Kentucky State Medical Society, 1894. For discussion see page 304.

CASE 3. G. Y., a farmer, married his first cousin in 1840; had nine children: two died with pulmonary tuberculosis, two were shot quite young in personal brawls, five are yet living, two girls who have pulmonary tuberculosis, and three boys, one of whom is bodily deformed; one is addicted to the morphine habit, and one has feeble mental capacity. Married his second wife in 1870; has one child, a boy, in perfect health.

CASE 4. Mrs. M. H. married in 1859 her second cousin; had three children, two girls and a boy; boy died of tubercular meningitis when five years of age, one girl died of pulmonary tuberculosis when eighteen years of age. The other daughter is suffering at present with hemoptysis; married, had two children, one died of pulmonary tuberculosis at twelve years of age, the other living, apparently healthy at eight years old. Married her second husband in 1873, has four children, all of whom are healthy.

I once practiced medicine in an old, uncommunicative settlement in Kentucky where consanguineous marriages were of common occurrence in many of its families, so much so that in some it was difficult to trace relationship.

The chronology of the four families recited above is but a very few out of the many well-defined cases.

To digress a little: When a physician prescribes for or remedies the immediate ailments of his patient, his duty as a physician is but half done, and I might add, in instances where others would necessarily suffer from the pre-existence of such diatheses, his duty is but one tenth done, or hardly done at all, the *conditio infacta* is, how then to prevent.

In view of the rapid strides that have been made and the exhaustiveness of the writings in these halcyon days of preventive medicine, my remarks here may seem *post confirmo*; but this biological subject has been studied mostly in the concrete and not in the abstract, that is, how to prevent certain germs and bacteria from entering the different tissues of the different organs of the body, while predisposition and vulnerability have been nearly ignored. I would rather have nature's resistance of a healthy mind and body than the protection against diseases of all the bacteriologists combined, for seed sown on a barren soil can not flourish, neither can the germs and bacteria that cause diseases find lodgment and flourish in their ravages upon physiologically sound tissues.

The key, then, to the successful treatment of all pathological disintegration and degeneration of tissue "in the present state of our knowl-

edge," is in building up the system, bringing about as near as possible a natural physiological condition.

While I have cited tuberculosis as a common affliction following in the wake of consanguineous marriages, it is because my observations have been mostly along that line, but, collectively speaking, there is no doubt that physical deformities, mental derangements, and imbecility is a common heritage of this shameful bond of Cupid, a menace to society, a curse to family unity, and a stigma upon civilization. The good book, which is the foundation of our own organic, social, and religious laws, has not failed in the eighteenth chapter of Leviticus to command us against this matrimonial evil, a disobedience of which not only proves a curse to those who violate the command, but sows the seed of predisposition, vulnerability, and malignancy, which will develop a baneful existence to generations yet unborn. To perpetuate wealth and influence it has often been an unfortunate resort, of which the crowned heads of European countries have furnished us in a great many instances with some sad examples.

The prosperity of a nation depends in a great measure upon the healthfulness of its people. With proper laws to prevent consanguineous marriages of individuals, and to go a step farther, not only consanguineous marriages but the marriages of hereditarily diseased persons with others of the same heredity, and the rigid enforcement of such laws will bring peace and happiness to many households, and strength to the nation.

CROPPER, KY.

THE ADVANTAGES OF THE WESTERN PLATEAU IN THE TREATMENT OF PHTHISIS PULMONALIS.*

BY S. D. SWOPE, M. D.

The treatment of phthisis pulmonalis has been a theme to occupy the medical mind since the first sufferer progressively emaciated and coughed his pulmonary tissues away, despite the arduous efforts of the pre-historic medicine man, whose charms and incantations proved little less satisfactory than the present therapeutic endeavors with the light of time shining with resplendent effulgence on their experience.

The treatment of this arch enemy of science has exhausted scien-

* Read at the June meeting of the Kentucky State Medical Society, 1894. For discussion see page 304.

tific research as well as empiric speculation, as is self-evident to every medical mind since the serum of dog's blood has been employed in France.*

In sheer desperation we turn from the field of allopathy and fill our mental abdomen with the succulent but unstable morsels in the pastures of *similia similibus*, until we find we have gorged ourselves with a substance absolutely indigestible, "Koch's Lymph."

There has been so much written and said in the last few years with regard to etiology and pathology in this affection that the careful reader of current medical literature would necessarily be bored by any rehashing of the subject. Suffice it to say that it is a commonly accepted conclusion that the bacillus tuberculosis now has the credit of producing the pathological results under discussion.

At this micro-organism the brains of the universe are leveling their weapons, but, despite the storm of therapeutic agencies and empirical endeavors, unscathed he stands and waves defiance at the attacking cohorts, so far secure in the fact that whatever may be able to deprive him of vital force will pull down the temple which he inhabits about his dead body, so he takes his dose of alcohol, cannabis indica, iodine, strychnine, and carbolic acid with a feeling of perfect security.

The observant reader and practical practitioner is forced by perfectly natural conclusions to turn from a long list of unscientific and irrational agencies until some new experiment exemplifies the adage, that "hope springs eternal in the human breast," when with laudable ambition, but unfortunately with no scientific conclusions, once the *ignis fatuus* lures him away from the path of science and duty.

From following these will-o'-the-wisps of past experience we turn with wearied brain and exhausted resources to such men as Austin Flint, who for so many years led the medical minds of this hemisphere, and find the three great therapeutic agencies, which as yet have the greatest discovered influence over this dread enemy, advocated by this great adversary—altitude, dry air, and sunshine.

Recognizing the above to be true, thousands of sufferers are sent annually by physicians to Florida, the Catskills, Carolina, Colorado, New Mexico, and Southern California.

When Dr. William Pepper, in closing his lecture to the class at the University of Pennsylvania Hospital, February 25, 1893, said in reference to a consumptive clinic: "I am sure as finite being can be, if this

*Gaze. Med. De Paris, 6, 1881.

girl could go to Colorado or any dry, bracing climate in the country, and take care of herself, that this would be stopped and she would become a perfectly healthy woman."

He struck the key-note for the treatment of phthisis pulmonalis with our present knowledge of the subject.

Since we have concluded that a dry climate, with a maximum number of fair days and minimum humidity, with slight range of temperature, a moderate degree of high altitude, and ample facilities for outdoor life are the elements best suited for the treatment of this disease, it behooves us to use all possible discretion in the selection of such salubrious surroundings for those with whom all our skill must sooner or later come to naught without these assistants.

Past experience has clearly demonstrated that for permanent or even long-continued residence Florida is unsuited for this class of patients; the low altitude, the humidity, and the heat of summer renders this region almost untenable during the summer months.

North Carolina with her pineries does not fulfill the requirement, for her most popular resort, Asheville, only has an altitude of 2,250 feet, while her temperature ranges from 100 degrees to 6 degrees below zero, and we instinctively turn to the western plateau.

The professional mind has long since been led in this direction, though we have had more theoretical conclusions than personal experience in this region.

Early in the present century many a poor consumptive left his eastern home in poor health to try his fortune in the gold fields of the West, and while he did not always fill his pockets with the precious metal he did his lungs with the pure ozonized atmosphere of a high, dry climate, and many a sickly, sallow cougher became a brawny miner.

After careful research and some personal experience in looking over the regions, I come to the conclusion that southern New Mexico comes nearer fulfilling all the requirements for the advantageous treatment of pulmonary diseases than any other region with which I am familiar.

Southeast of Silver City there is a high plateau, partly across which runs the little mountain stream, the Mimbres River, until it loses itself in the dry, sandy plains. This plateau, from 4,500 to 5,000 feet in altitude, about fifty miles long and forty wide, is sheltered on every side by high mountain ranges and peaks. The wind blows almost continuously from the northwest and west. The greatest velocity recorded at Silver City is only 20 miles an hour, while Denver has a record of 42,

New York 48, Chicago 35, St. Louis 37. The sun shines nearly all the time, there being only thirty cloudy days recorded by the Signal Service officer at Fort Bayard in 1891.

Some idea of the dryness of the atmosphere may be gathered from the fact that ten inches is considered a heavy annual rainfall, and no one in the region expects rain from October until the following July. Vegetation in this region does not decay but simply dries up.

So perfect is this dessication that I dug from the site of an old Aztec village a piece of pine which had been used as a post. It still remained in a perfect state of preservation. Even the charcoal remained intact where the Indians had burned it off at the lower end many years ago. Animals do not decay, but simply dry up on the plains. Beef will keep here without salt for weeks when a man is not uncomfortable in his shirt sleeves.

In this valley the maximum temperature is 90 degrees,* but the ever-present breeze from the mountains so tempers the heat that it is not oppressive. The minimum temperature for the last ten years has been 28° F. The hottest days are sure to be followed by nights when a blanket is a necessity, enabling one to secure a good night's sleep though the heat of the day may have been oppressive.

Here an invalid may be out of doors three hundred and thirty days in the year, while the mountain scenery and many geological developments afford pleasant diversion.

Unfortunately the facilities of this region are meager indeed for the accommodation of invalids, and poor hotels and poorer houses are the rule everywhere. I found here many persons whose physician had informed them that only a few months were left them on earth, when in reality, comparatively free from the effects of their malady, they were pursuing their vocations after several years had elapsed.

Pulmonary phthisis does not occur, so far as I could learn, among the natives, nor does the disease develop in offspring of tuberculous families.

Asthma and hay-fever are unknown. At the northern extremity of this plateau there wells up a hot spring that flows at a temperature of 142° F., affording ample facilities for bathing, and irrigating quite a scope of country. This spot seems to me the most favored I have ever yet seen for treatment of pulmonary disease. With a mean temperature of 54°, humidity the lowest possible, in a latitude of 32° 46', longi-

*United States Signal Report.

tude 108° 30', in an altitude of 4,500 feet, highest temperature 90°, lowest 28°, with a high, dry air in which putrefaction literally does not take place, we invest our patient with surroundings which facilitate the healing process and invigorate his body to the highest possible degree.

When I reached this region late in the winter with a patient whose left lung was almost entirely hepatized, who had had night-sweats, progressive cough, profuse pulmonary hemorrhage, and great emaciation, his exhaustion was almost complete. Leaving him here I went to Southern California to investigate its climate, returning in twenty days. I found my patient, who was scarcely able to walk when I left, riding readily and walking everywhere. He now is working on a cattle ranch. His cough has disappeared, he has gained much strength and considerable weight. He can now ride forty miles a day, and with myself is overjoyed with the change.

I am conscious that one swallow does not mean that summer has arrived, and yet with my experience and the happy result with this patient, in which the diagnosis was unmistakable, I do feel warranted in asserting that most phthysical patients sent to this climate in time, placed in desirable surroundings, and given the regular palliative and supporting treatment, will come nearer recovering from phthisis than under any other now known treatment; and I firmly believe that at the foot of the hillock, from which issues the hot spring of which I spoke, will some day be built a sanitarium which will prove a Mecca if not a fountain of life to many a poor consumptive.

In passing through this region the average traveler in pursuit of either health or pleasure sees little to interest him. The sandy waste, the mesquite brush, and sleepy towns are of little interest, and do not compare favorably with the orange groves all laden with their golden fruits, the nodding acacias, graceful eucalypti, and spice-perfumed pepper trees of lower California, where graceful hedges, stately palms, and beautiful flowers are seen on every hand; but ice-boxes are badly needed for their meats and game, and the disagreeable sea fog creeps to the foothill and up the slopes of the Coast Range, and at times the grapes must be transported to higher altitudes to dry into raisins, while mackintoshes and rubber shoes are often needed.

I have said nothing of many places on the western plateau which have unmistakable advantages in the treatment of pulmonary diseases, but have confined myself to the special regions which, after personal

examination, I believe to be best adapted to the treatment of this affection.

Northern New Mexico and Colorado have long been lauded for their climate, but on the 22d of February last, while Santa Fe was shivering with sleet, Las Vegas and Colorado City with Denver enveloped in six inches of snow, the valley of the Mimbres was as dry as tinder, and after ten o'clock few men needed more than a light suit and no overcoat.

MARION, KY.

Reports of Societies.

KENTUCKY STATE MEDICAL SOCIETY.

Thirty-ninth Annual Meeting of the Kentucky State Medical Society, held at Shelbyville, Kentucky, June 6, 7, and 8, 1894.

[CONTINUED FROM PAGE 276.]

Dr. J. Morrison Ray, of Louisville, read a paper on "Contagious Eye Diseases and Preventable Blindness, their Etiology and Methods for Prevention." [See page 289.]

This was discussed by Dr. Evans, of Louisville, and Dr. Carpenter, of Stanford.

DISCUSSION.

Dr. T. C. Evans, Louisville: I am glad Dr. Ray has brought before the Society the legal aspect of ophthalmia neonatorum. He has well said that it is one of those diseases that is amenable to treatment if seen in time. A few hours means a great deal to the patients. They either recover perfectly or are afflicted with lifelong blindness. If I am in order, Mr. President, I will offer a resolution carrying out the idea suggested by Dr. Ray in regard to this subject.

Dr. Evans then offered a resolution, which was seconded and carried.

WHEREAS, There are in this State nearly 1,000 persons blind from ophthalmia neonatorum, and

WHEREAS, This unfortunate result is largely preventable, being due to the neglect of nurses and midwives; therefore be it

Resolved, That it is the sense of the Kentucky State Medical Society that the State Board of Health should, through its Secretary, draft and present to the next General Assembly for their enactment a suitable law, with proper penalties, requiring nurses and midwives to report to the Health

Officer or some legally qualified practitioner of the city, town or district, all cases of inflamed, swollen, or reddened eyes occurring in infants under their charge within six hours after the discovery of such conditions.

After the reading of the resolution Dr. Evans further said :

Many of us know that medical legislation is not a very easy thing to secure. I have had considerable experience with it, and know that it is tedious and disappointing; but I think if this matter is intrusted to the excellent Secretary of our State Board of Health (Dr. McCormack), we will have a suitable law enacted. He is the most successful lobbyist I have ever known. He has secured for us medical legislation in the past when there was little hope of obtaining it. If we secure the passage of a law, it may not be a panacea for all these ills, but, as the essayist has said, some good will come of it by simply having the cases of ophthalmia neonatorum reported, as they occur largely in the hands of midwives and nurses and are treated by them, and the family physician or specialist does not see them until the cornea has already sloughed: then it is too late.

Dr. J. G. Carpenter, Stanford: The Southeastern Kentucky Medical Society drafted resolutions and presented them to the last legislature, asking them to enact measures for the prevention of blindness in the newborn similar to those passed in Massachusetts and other States. So I think that Society should have the honor of first presenting this bill for the blind act.

In regard to ophthalmia neonatorum, there is no doubt but that it can be prevented. Sore-eyed nurses or sisters can give trachoma to the little infants only a few weeks old. In the country we find several members of a family with trachoma, so that it is a terrible disease, causing about 75 per cent of blindness.

Another point is the trachomatous condition of the eyes of children following measles, scarlet fever, and diphtheria. This is overlooked by the general practitioner. The eyes are neglected in these diseases, and trachoma is developed. By washing the eyes after diphtheria, measles, and scarlet fever, the general practitioner has in his hands the power to prevent trachoma and ophthalmia neonatorum. We can prevent cataract from taking place also by instituting early measures. I have a family now under my observation in which there are four cataractous patients. The father was the subject of cataract, and he inherited it, I believe, from his grandparents.

Dr. Ray (closing the discussion): I read a paper before this Society one year ago on diseases of the eye the result of inherited and congenital conditions, taking the ground that many such grew out of our existing social conditions. I did not class these forms as contagious, and the diseases of the eye that I spoke of were the result of consanguinity. By calling the attention of physicians to the importance of this subject many cases of blindness may be prevented. I believe, if we can get the members

of the legislature interested in the subject, we will secure some legislation. I was not aware that the Southeastern Kentucky Medical Society had made any move in this direction.

Dr. B. F. Herndon, of Barbourville, read a paper entitled "Perineal Section (External) without a Guide." No discussion.

Dr. John G. Birchett, of Cropper, read a paper entitled "Consanguineous Marriage the Predisposing Cause of Tuberculosis." [See p. 295.]

This paper was discussed by Dr. Woody, and in closing by the author of the paper.

DISCUSSION.

Dr. Samuel E. Woody, Louisville: I would like to enter a protest against the indiscriminate condemnation of consanguineous marriages. I believe it is unscientific. It is unjust. Because two people are first cousins there is not sufficient reason that their progeny should inherit disease. Children can not inherit from their parents what they never had. I believe there is no physiological objection to the union of two healthy first cousins. We certainly find no objection to breeding-in in the lower animals. However, the trouble is, two first cousins are apt to inherit the same constitutional taint, and of course their offspring would inherit it probably from either side. Again, the union of two first cousins might have a beneficial effect by the offspring's inheriting different and antagonistic constitutional diatheses, the one having a rheumatic diathesis and the other a strumous. Their progeny would be half one and half the other, and might be able through life to resist both. It is a pity that we can not control the breeding of the human race as we can that of the Kentucky horse. If we could have two hundred years of as intelligent supervision of the procreation of our own species as we have had of the Kentucky thoroughbred, we would have in this country a race of men and maidens far more beautiful and physically perfect than any that ever graced the homes of classic Greece. We would regenerate the human race.

Dr. Birchett (closing the discussion): With reference to the cases I related, statistics will bear me out in my assertions regarding consanguineous marriages, that even where the parents have been perfectly healthy, showing no cachexia or disease of any kind, such marriages have resulted in diseased offspring.

Dr. S. D. Swope, of Marion, read a paper entitled "The Advantages of the Western Plateau in the Treatment of Pulmonary Diseases."

This was discussed by Dr. Rodman, and in closing by the essayist.

DISCUSSION.

Dr. W. L. Rodman, Louisville: Personal residence in the western country, or near where the essayist speaks of, enables me to confirm every thing he says. I believe the location is a good one for consumptives.

Dr. Swope (closing the discussion): I have nothing in particular to add, except to thank Dr. Rodman for his commendation of my paper. I would like to say that the patient whom I referred to is my brother, and I have left him there for permanent residence. I had a letter from him yesterday describing how he had learned to use the lasso, and he has recuperated to a remarkable extent.

TREASURER'S REPORT.

The Treasurer read his report, as follows:

Gentlemen of the Kentucky State Medical Society:

I herewith transmit the report of the condition of the treasury of the Kentucky State Medical Society. During the past year circulars have been sent to over two hundred delinquents, urging them to settle back dues to meet ordinary expenses. A large majority have failed to respond. If half our delinquents would settle we could meet our obligations.

There was not sufficient money collected during the past year to meet our expenses. The second volume of Transactions was published by John P. Morton & Co. at a cost of \$651.65, on which we have paid \$453.32, leaving a debt of \$198.33.

RECEIPTS.

Balance on hand May, 1893, . . .	\$8 67
Collections at Frankfort, . . .	559 00
Collections from delinquents, . .	124 00

\$691 67

Respectfully submitted.

DISBURSEMENTS.

J. P. Morton & Co. on Vol. 1893, .	\$453 32
Same, printing for Society, . .	25 50
W. P. Walton, printing,	6 75
H. D. Goodwin, stenographer, .	71 10
J. R. Marrs, printing,	3 00
Treasurer, stamps,	4 00
Secretary's salary,	100 00
Secretary, stationery, etc., . . .	28 00

\$691 67

J. B. KINNAIRD,
Treasurer.

Dr. W. O. Roberts, of Louisville, presented a patient, a boy about five years of age, upon whom he had performed a nephrotomy in December last. The tumor was noticed six weeks before the doctor saw him, and was then about the size of a small cocoanut. The child in running fell on his abdomen, and in passing the hand over the abdomen to see whether he was hurt this tumor was discovered. How long it had been there they did not know. The doctor saw the case for the first time in the latter part of November with the physicians in charge, Drs. Beard, Beckham, Barker, and Harwood, of Shelbyville. At that time the tumor filled the greater part of the left side of the abdomen and extended about two inches beyond the median line into

the right side. Patient had a temperature of 101° , pulse 112. There was a question as to whether there was fluctuation, and to settle this question the aspirator was used and nothing but a little blood was withdrawn. The doctor then diagnosed the case as sarcoma of the kidney, and advised a nephrotomy.

The patient was brought to the Norton Infirmary in the latter part of December. The tumor then had increased in size so that it extended at least three inches beyond the median line into the right side and filled almost the entire left side of the abdomen. There being some doubt in the minds of some of the gentlemen present, who had been in charge of the case, as to the organ involved, some thinking it was the spleen, it was decided to make first an exploratory incision two inches in length along the outer border of the left rectus muscle. Through this it was found to be a sarcoma of the kidney.

An incision was then made from the lower extremity of the exploratory incision and just beneath the ribs back to the erector spinæ muscle—the incision which was recommended by Abbe and Kocher. When the tumor was enucleated the child was so prostrated that it was decided to tie the ureter and vessels *en masse* so as not to prolong the operation. The wound was then brought together by deep and superficial sutures, and the child put to bed almost moribund. He gradually rallied and made an almost uninterrupted recovery, leaving the infirmary four weeks after the operation. Since then he has steadily improved, and at the present time seems to be in perfect health. There is no sign of ventral hernia.

The doctor called attention to the fact that with the transverse incision the kidney is much more easily reached, and in the case of small tumors the peritoneum may be pushed forward. Several years ago he removed an immense sarcoma in a child ten years of age, and in that case made the incision in the median line. The patient made a good recovery, but died some months afterward from recurrence of the growth. He was struck with the great advantage the transverse has over the median incision. The tumor in the present case weighed a little over seven pounds. It sprung from the capsule of the kidney. Only a small portion of the kidney seemed to be involved in the growth, but it was thought best to remove the entire organ. In summing up the case the doctor stated that one half the cases usually die from the immediate effects of the operation, but thinks that the Trendelenberg position will lessen very materially the shock and loss of blood, and

thereby lessen the mortality from the immediate effects of the operation. There are several cases on record where the patients have survived the operation four years.

DISCUSSION.

Dr. W. L. Rodman, Louisville: I think the case reported is a most gratifying one indeed, and I wish to congratulate Dr. Roberts, as well as the father and mother, upon the excellent result. It is a good result, as emphasized by the recollection of the fact that at least from forty-five to fifty per cent of nephrotomies die either upon the table or soon thereafter. I wish to say in connection with the case that I believe the transverse incision (Abbe's incision) is the best one that can be made in the removal of these growths. The objection to the anterior incision of Langenbeck is that you can not establish the best drainage, and the objection to the posterior incision is that it does not give free access to the inside of the abdomen, and you may remove the only kidney a man has. In the transverse incision you get the chief advantages of both methods. You can examine the opposite kidney, and you get in the posterior angle of the wound the best drainage that can be made, which combines the chief advantages of both the anterior and posterior methods.

I recently had the privilege of seeing Abbe operate on the case of a boy, three or four years of age, and I was struck with the extreme facility with which the kidney was reached and the pedicle ligated and secured.

Dr. W. Carroll Chapman, of Louisville, read a paper on "Membranous Croup; with a Report of Cases":

We have authorities of eminence who hold that the two diseases are etiologically and anatomically identical, notwithstanding they may differ greatly in their clinical aspects. Opposed to this view are those who teach that the two diseases are very distinct throughout.

The most recent researches have led to the acceptance of the former theory by the majority of investigators and students. In France the term *croup* is defined as "tracheal and laryngeal diphtheria;" in Germany, "membranous deposit on the internal surface of organs;" in England, some consider it as a non-specific inflammatory membranous deposit on the mucous membranes of the larynx and trachea; others consider it a misnomer applied to a local manifestation of diphtheria. Fraenkel believes that idiopathic croup is etiologically identical with diphtheria of the larynx caused by the Klebs-Loeffler bacillus.

Perhaps Osler is the nearest correct of the writers on this subject when he says: "Membranous croup is now regarded by many authorities as always diphtheritic, and while it must be acknowledged that this is so in the great majority of instances, there are cases, few in number it is true, in which it is not possible to assign this origin." . . . He further states that

"the question may be settled by the presence or absence of Loeffler's bacillus, which is a definite criterion of diphtheritic pseudo-membrane."

The cause and morbid anatomy of diphtheria and membranous croup being the same, how are we to harmonize that with the difference in the clinical features?

There seems to be two reasons why the constitutional symptoms of diphtheria of the pharynx and nose are absent in laryngeal and tracheal diphtheria or membranous croup, either one of which in itself is not sufficient, though the two acting together make the theory quite plausible. Essential to both of these is the fact that the pharyngeal and nasal mucous membranes are the receptacles *par excellence* for the development and active life of the Klebs-Loeffler bacillus. Not only do these particular localities supply the best food for the full growth of the bacillus, which seems necessary to its performing its function, namely, the production of toxic albumen, but they furnish a ready medium for the absorption of this poison, or these poisons, in the system, from which come the constitutional symptoms. . . .

The opposite of this being true of the larynx and trachea explains the absence of those constitutional symptoms produced only by the absorption of the toxic albumen. . . .

The second reason that the constitutional symptoms are not manifested in membranous croup, laryngeal or tracheal diphtheria, is because of the resistance to absorption of the toxic albumen offered by these tissues. The virulence of the poison being modified, and the power of absorption being lessened, both conditions existing at the same time, the effect of the bacillus is only local.

Considering membranous croup and diphtheria in the above manner, the etiological and anatomical identity are made to harmonize with the different clinical aspects. The cause being the same in the two diseases—for, the clinical features being distinct, they are practically different diseases—we are naturally led to an identity in the treatment employed in as far as the removal of the cause is concerned.

The author reported four cases of membranous croup, submitted to treatment based upon the foregoing conclusions. The results seemed to justify the theory.

A few words in regard to these cases would not be inappropriate. I did not have the membranes examined for the Klebs-Loeffler bacillus, because at the time I did not anticipate reporting them. However, the cases are so typical of membranous croup that there is barely a possibility of mistaken diagnosis, at least in every case reported.

I made especial notes of the cases because I wanted to compare the result of the treatment (obtained with hydrogen dioxide) with the result given in the nine cases of diphtheria previously reported. The success in the first case led me to follow it in the other three.

If I am correct in the conclusions reached from the use of H_2O_2 in diphtheria, and am correct in my diagnosis in the above four cases of membranous croup, of which I feel satisfied from my experience with the disease heretofore that there is not the shadow of a doubt, then we are brought by a new route to some natural conclusions, which have been previously stated, regarding membranous croup.

1. The effect of a proper solution of H_2O_2 upon the membrane of croup and that of diphtheria when properly applied is identical, which strengthens the claim of bacteriologists that the etiology and morbid anatomy are the same.

2. One reason that the clinical aspects differ is that the Klebs-Loeffler bacillus is in a modified form in membranous croup, or laryngeal and tracheal diphtheria, due most likely to the fact that the tissues here are not adapted to the complete development of the bacillus and its consequent inability to produce the toxic albumen in virulent form.

3. The second reason is the resistance offered by the tissues of this locality to the absorption of the poison. (Daly.)

4. In the treatment, hydrogen dioxide is indicated by spray, first on account of its bactericidal properties, and secondly to counteract by inhalation the poisoning by carbon dioxide, which usually is the cause of death in these cases.

5. Calomel, chlorate of potash, and chloride of iron are indicated for about the same reasons given in 4.

It seems reasonable that further observation along this line will result in a decrease in the mortality due to the above disease.

DISCUSSION.

Dr. John A. Larrabee, Louisville: All I wish to do is to call attention to the tendency now existing to unite the two diseases, throwing out entirely all bacteriological and microscopical investigation. I believe in both microscopy and bacteriology thoroughly, and I further believe that a good microscopist or bacteriologist can find almost any thing he looks for. The great point is this: They ignore entirely symptomatology. That is the great tendency. There is as much similarity between diphtheria and croup as there is between measles and smallpox. In the one case we have a disease that can be gotten up by any thing that acts as an irritant, a disease in which we have an exudate. This was the old doctrine, and it has not been disproved; a disease in which we have no contagion, a disease corresponding to climatic influences, occurring at certain seasons of the year, and a disease which occurs by preference in children. We have a disease in which there is no enlargement of the glands of the neck, and I never saw a case of diphtheritic poison or diphtheria in which the germs were not present.

The doctor failed to tell us of the condition of the secretions of the kidneys, a very important point for differential diagnosis. Eighty-five per cent of the cases of diphtheria examined as regards urinalysis show albumen

in quantities sufficient to be recognized, in many of them a very large proportion. We do not have this in croup. I regard the condition of the urine as essential to the diagnosis of diphtheria as any single symptom, and its examination ought not to be omitted in a single case.

We have in croup a disease which the doctor denominated as having no sequelæ. There is no continued paralysis. When the mechanical obstruction is relieved the patient is well. Thus we have long recognized croup as a disease, sudden in its onset, producing death by mechanical obstruction, without symptoms of blood poisoning, and never followed by paralysis or the ulterior symptoms so commonly known to us in diphtheria. These are points of permanent distinction.

In regard to the possible explanation of the essayist, which was certainly very ingenious indeed, that the structures involved in the location of the membrane were not such as to absorb the tox-albumin formed by the micro-organisms, that certainly would account for the non-poison; but the doctor states that his case was attended by high fever, so it becomes necessary for him to explain the febrile symptoms. Invasion of the system with diphtheria is attended by elevation of the temperature. We are called upon to see our patients with high fever, cephalalgia and myalgia being more prominent, the temperature ranging between 104° and 105° . There are instances where the disease is not local before it is constitutional. I object to compounding the terms. I believe in diphtheria and croup, but I do not believe in a diphtheritic croup or diphtheritic any thing else. It is either diphtheria or it is not. I have seen cases where there was diphtheria and croup in the same case, the croup being produced by mechanical irritation. I have seen cases of typical croup go on to death, where the patient had inhaled vapor or poisonous fluids. I have seen the same pathological membrane in cases where steam has been inhaled, where we have death produced by mechanical obstruction. Certainly there was no microbic action here, and the climatic influences, the cold and exposure in the winter, are sufficient to develop in an immature larynx a disease attended by exudation. That is what I call croup.

Another point I desire to call attention to is the character of the membrane itself and the expectoration of membrane. Anybody who knows any thing about diphtheria knows with what difficulty the membrane can be taken away from the sound tissue; and anybody who knows any thing about croup knows with what facility this membrane can be removed after the secretion has formed beneath, while in diphtheria an effort to dislodge the membrane takes with it a portion of the underlying structure. I desire to put myself on record as opposed to union in these two diseases.

Dr. T. C. Evans, Louisville: I was very much interested in the paper of Dr. Chapman, in that he reported four cases of croup without a single death, neither intubation nor tracheotomy having been performed. I think it is rather unusual from the fact that the best statistics we have at our command show that ninety-five per cent of the cases of true croup are fatal.

In regard to the treatment and the exfoliation of the membrane, the membrane being expectorated and thrown off in each case from the third to the fourth day, all of us who have had experience with cases of laryngeal croup know that it is rare that the membrane is cast off on the fifth day, and it sometimes remains until the sixteenth day. When a piece of the membrane is attached to the tracheotomy tube it looks translucent, and does not have a dirty color when thrown off.

With reference to shortening the life of the membrane with peroxide of hydrogen, I do not think this can be done. I have repeatedly, in the membranous patches of diphtheria on the tonsil, where the continuous use of peroxide of hydrogen (15 volume solution) was resorted to, been mortified to see the patch grow day after day. I think peroxide of hydrogen never attacks the membrane until it has begun to decay, until it has run its natural course. When pus forms upon the pseudo-membrane, which hastens the process of exfoliation, then we can hasten the casting off of the membrane by using peroxide of hydrogen. It must not be forgotten that we sometimes do harm with the use of peroxide of hydrogen. I have set up cases of pneumonia from the use of peroxide of hydrogen where I had a tube in the larynx, the tube being partially occluded. I thought I might be able to dissolve the membrane without removing the tube, and within a short time the temperature rose and I had a well-developed case of pneumonia. That, I am inclined to think, was due to the use of peroxide of hydrogen in the larynx of the patient, it coming in contact with the small bronchi and lung tissue. I do not know any thing about coal oil, and I do not know what effect it would have on the membrane. I am satisfied, however, that peroxide of hydrogen will not shorten the life of the true membrane we have in the larynx. I think the most of us are inclined not to tamper with these cases, except to perform tracheotomy or intubation. I do not know of any department of medicine which has shown greater advance than intubation within the last ten years. I do not think there is any class of cases in the practice of medicine that more excites the sympathy of the practitioner than cases of true croup. We all remember them. We are called upon time after time to treat cases of croup, where it seems to us there is absolutely nothing to do but to wait for death. Destruction of the pictures and furniture has been resorted to and still the patient went on gasping for breath. It is true we do not save all these cases, but the chances for recovery are good where only the larynx is involved. As the essayist has said, constitutional infection from laryngeal diphtheria is not usually very violent.

Dr. Joseph Hopson, St. Matthews: I can practice, but I can not preach. I rise, therefore, to indorse the able paper of Dr. Chapman. My experience with the disease has been a sad one indeed. I have had several cases, ranging in age from seventeen months to five years, and all died promptly. So I have come to the conclusion that medicine does not possess any curative properties whatever in this disease. The only relief that we can hold out to our patients is tracheotomy or intubation.

Dr. R. B. Gilbert, Louisville: The nomenclature of diphtheria and croup is confusing. The doctor describes a case of croup and confounds it with diphtheria. That is the conclusion I have arrived at in listening to his paper, and that he makes no distinction between the two diseases—it is one and the same disease. I agree with some of the gentlemen who have spoken that the two diseases are entirely different, and we should drop the word croup entirely. It has no significance whatever; but there is certainly a very distinct inflammation of the mucous membrane of the larynx accompanied by exudation of epithelial necrotic cells and an albuminate process, and it has an entirely distinct membrane, separate from what we call true diphtheria, and we should drop the term croup entirely and speak of membranous laryngitis and fibroid laryngitis. By so doing we will get rid of this confusion that so frequently arises.

The cases that the doctor has reported are remarkable, in that they all recovered so promptly under treatment; and they are further remarkable because they presented no complications. Of all the diseases known, perhaps there are none accompanied by more dangerous sequelæ than diphtheria. As mentioned by Dr. Larrabee, other organs of the body suffer in diphtheritic disease, and we are especially liable to have paralysis of some character following as a complication. I am rather inclined to believe that the cases reported were membranous laryngitis and not diphtheritic laryngitis. A great deal of confusion has arisen on this subject, and so great an authority as J. Lewis Smith, in the latest edition of his book, maintains that there is a difference between the two affections, and the report of such cases still further proves that there is a disease in which coal oil and ipecac have therapeutic efficiency. Ipecac acts nicely. If you give it in repeated doses, however, to a patient suffering with genuine diphtheria, either of the larynx or pharynx, its depressing effect will be sufficient to cause his death. Some years ago I treated diphtheria in that way. Wherever I gave that sort of emetic death was a certain issue. I have seen certain cases of diphtheria get well where the only emetic used was a turpeth mineral. Ipecac depresses the patient and leaves him prostrated for hours. As to the local treatment of diphtheria, I do not think the peroxide of hydrogen cures the disease at all. In the constitutional treatment Bourbon whisky and chloride of iron are the remedies, and in the local treatment intubation or tracheotomy with possibly some stimulating emetic.

Dr. Samuel E. Woody, Louisville: There is no doubt but that we may have a fibrinous inflammation or a non-specific inflammation of the larynx. But the disease under consideration seems to be clearly specific. I will confess that I was the one who was called in consultation with the doctor's predecessor to perform tracheotomy, after which the patient died. I remember very well I saw the case about midnight. The child was very sick. There was profound toxemia, high fever, and all the evidences of a severe case of laryngeal diphtheria. We did the best we could to lessen the membrane, but without success. We speedily performed tracheotomy,

but the patient died. That was only a few weeks before you were called in, doctor.

Dr. Chapman: Several months.

Dr. Louis Frank, Louisville: I am glad to hear Dr. Chapman express his opinion in this way. From a bacteriological standpoint there is absolutely no difference between membranous croup and diphtheria. The pathological changes are precisely the same. The diphtheritic membrane is confounded with so-called croup. A great many of the systemic effects we have in diphtheria are due to secondary infection with the pus-producing micro-organisms, and not to the primary effects of the diphtheritic bacillus itself. There may be a varying virulence in the diphtheritic bacillus, as well as in other organisms or plants. They must be sown in a suitable soil.

Examinations of the membrane bacteriologically have shown the presence of the Loeffler bacillus in the so-called cases of membranous croup. Dr. Delafield, of New York, held the position several years ago that Dr. Larrabee now holds, but he has since receded from that position. We can and do have paralysis following the infection of animals with the organism derived from the membrane, as demonstrated by pure culture experiments that are analogous in every way. I heartily indorse what the doctor has said in this line.

Dr. T. B. Greenley, Orell: I have practiced medicine for about forty years, and have seen one case of membranous croup get well, but I was apprehensive that the case would terminate fatally.

Fifty years ago Dr. Green, of New York, made himself celebrated by publishing an account of the manner in which he treated membranous croup. His method was this: He would make a strong solution of nitrate of silver, take a whalebone probang, tie a piece of sponge on the end of it, dip it into the solution, and then introduce it into the larynx. I went to a case one evening and was told by the parents that the child was dying. They said, "Doctor, can't you do any thing?" I told them about the character of the treatment instituted by Dr. Green, and I had the courage to attempt it. I carried it out, and thought sure I would kill the baby, but the little one recovered. This was the only case I saw get well. About twelve or fourteen years ago I was called to a case, and thought I would institute different treatment from what I had ever done before. I told the mother the baby would only live two hours, and she said, "Can't you do any thing, doctor?" I said I would try to do something. I placed the child in the mother's lap and administered proto-chloride of mercury and two grains of chloride of ammonium, gave it every two hours, with warm cloths wrapped around the neck, and instructed the mother that if the child lived to send me word the next day. The next morning I saw the little boy coming, as I thought, to tell me the child was dead, but he came for more medicine, and said the baby was a good deal better, and that his mother wanted me to come and see it. I went and found the baby doing well. The child recovered. Since that I have treated six cases on the same plan, and they got well.

Dr. George W. Beeler, Clinton: Dr. Frank took the position that diphtheria and membranous croup are the same disease. I have been practicing medicine thirty-nine years, and I am satisfied from my experience that they are not the same disease. I do not care what you say about the bacillus. Even if you find it in the two diseases, I am still satisfied that they are different affections. I might go on and tell you about the number of cases of membranous croup that I have had, the number of operations of tracheotomy that I have performed, the number that have gotten well by the use of tartar emetic and turpeth mineral heroically given, but it is hardly necessary. Quite a number of cases have lingered along from twelve to fourteen days perhaps, and then got well. As soon as the membrane is discharged in membranous croup the child can breathe; it can take in sufficient air to breathe, and is ready to go about. But in diphtheria, after the membrane is exfoliated and given off, the child will often be paralyzed. There will be that constitutional depression following the diphtheria which does not follow membranous croup. I know that doctors are apt to be mistaken in their diagnosis of the two affections, but I am satisfied that diphtheria is a constitutional disease, while membranous croup is a local trouble. At least that is the best definition that we can give of it with our present information on the subject.

Dr. Yager: I have nothing to say on this subject except this, that the more we understand the cause, progress, nature, and treatment of this disease the better we will be next year when we meet again.

Dr. Chapman (closing the discussion): In reporting those cases I took the position which I did, anticipating just such opposition as that which I have met. At the same time I am just as fully satisfied that these cases were membranous croup, and they were identical with diphtheria.

In the discussion some of the gentlemen have misquoted me, others have misunderstood me, and in that way I am led to reply to some of their remarks. In the first place, my friend, Dr. Larrabee, said that membranous croup was just as different from diphtheria as measles is different from smallpox. To a certain extent that may be true, and I mentioned in my paper that the clinical aspects of the two diseases are entirely different, but that the cause and morbid anatomy of the diseases are exactly the same, and in this opinion I am upheld by the best authorities both in this and European countries. I believe in my paper I have explained, at least to my own satisfaction and to some of the gentlemen who have spoken, the reason why in membranous croup constitutional symptoms are not manifested as they are in diphtheria, and I will not go over that ground again at this time.

Dr. Larrabee misquoted me in saying that I reported a case as one of high fever, and I think that came quite naturally, because I read the temperature 101.5° , and he understood it to be 105° . None of cases had a temperature above 101° . I am satisfied that Osler, Pepper, and some European writers say that membranous croup may appear by a deposit in the larynx

as small as the end of a pencil ; in other words, membranous croup may be modified to such an extent that it is hardly noticeable. The same applies to diphtheria, and if the four cases which I have reported were membranous croup, or laryngeal and tracheal diphtheria, which the most eminent authorities bear me out in believing, then it can be explained that they were in modified form. I do not claim any special skill in bringing these cases through, and the only object of my paper was to uphold the treatment I used, and not to lay special stress on the identity of the two diseases.

The following was offered by Dr. Stewart :

WHEREAS, Owing to lax requirements, many students are being admitted to our medical schools in this and other States who are so deficient in education that they can not profit by the instruction given, and

WHEREAS, Our own and other schools are making an earnest effort to meet this difficulty, a work in which they need the cordial support of the body of the profession ; therefore be it

Resolved, That we urge the importance of this reform upon the schools and the profession, and to this end ask the State Board of Health (if within its authority) to provide such requirements in the near future as will permit only this class to enter upon the practice of medicine in this State, and that preceptors exert their influence toward bringing about this reform.

Seconded and carried.

Dr. McCormack moved that a copy of the resolution be sent to each medical school in the State, and to the State Board of Health.

Seconded and carried.

The following papers were read by title and referred to the Committee on Publication :

1. "Appendicitis, its Varieties and Pathology." By Dr. F. Dunlap, Danville.

2. "Treatment of Inoperable Sarcoma, with the Toxic Products of Erysipelas." By Dr. W. B. Coley, New York City.

3. "Dysentery, its Etiology, Pathology, and Treatment." By Dr. J. Edwin Caldwell, Perryville.

4. "Cystic Tumors of the Ovary and Broad Ligament." By Wm. H. Wathen, Louisville.

5. "The First Assistant in Abdominal Surgery." By Dr. Wm. R. Kirk, Louisville.

6. "Adenoid Growths in the Vault of the Pharynx." By Dr. W. H. Roberts, Paris.

7. "What is the Most Frequent Location of Cervical Lacerations when Exceeding the First Degree?" By Dr. George E. Davis, Salvisa.

8. "Anesthesia for Examination of the Rectum, Sigmoid Flexure, and Lower Colon." By Dr. W. O. Green, Louisville.

9. "Relations of the Diseases of the Air-Passages to the Eye and other Organs." By Dr. J. G. Carpenter, Stanford.

10. "Report on the Naso-Pharynx." By Dr. George E. Davis, Salvisa.

11. "Abuses of Proprietary Remedies." By Dr. H. H. Roberts, Paris.

12. "An Obituary of Matthew T. Scott, M. D." By Dr. Lyman Beecher Todd, Lexington.

There being no further business to come before the Society, either of a miscellaneous or scientific character, the Society, on motion, adjourned to meet in Harrodsburg, 1895, at a date to be announced by the Committee of Arrangements.

STEELE BAILEY, M. D., *Permanent Secretary.*

Abstracts and Selections.

THE UNCERTAINTY OF WATER ANALYSIS.—It is now generally admitted that impurities of organic origin are alone the dangerous element in drinking-water, and by far the greatest risk to the health of the community is incurred by using water containing certain living organisms which are capable of producing specific effects when introduced into the alimentary tract.

The presence of organic matter can be most certainly demonstrated by chemical analysis, but by this means it is impossible to demonstrate whether the organic matter contains living organisms, as all organic matter does not contain them, so that a chemical analysis of water alone is very misleading. They can most certainly and accurately determine the chlorides, nitrates, phosphates, and ammonia of organic matter, and of the amount of oxygen consumed, all of which is of great importance as an index of the purity or impurity, and as to the degree of pollution of the sample analyzed, but their chief importance is that they throw some light as to the probable source of the impurity. Water from some sources might contain excess of nitrates and mean nothing, while another sample, containing less nitrates and from a different source, might be unfit for use. Erroneous conclusions may be drawn from the determination of oxygen consumed and of albuminoid ammonia. Many samples of water are passed by the chemist that are absolutely unfit for use. Although a chemical analysis can not guarantee pure water, yet it can reveal impurity and danger. A sample of water into which a small quantity of typhoid excreta was introduced could not be detected by the chemist, so that chemical analysis is of use only as indication of the probable source of contamination.

When, however, the specific micro-organisms of cholera, typhoid, etc., have been isolated from water, the examination passes out of the hands of the chemist into that of the bacteriologist. But this is even as misleading as the chemical, if taken alone. For instance, the cholera bacillus could not be detected in the water that undoubtedly poisoned Hamburg. Neither could the typhoid bacillus be detected in the water that caused the epidemic in Worthing, in the south of England, some few years ago. In water reputedly good the number of liquefying colonies are few in number, but in sewage-polluted water they are numerous; this fact is of only medium value, because it shows only gross pollution, as most of those liquefying colonies are harmless. Bacteriology, like chemistry, can not be depended upon to determine absolutely whether a water is injurious to health, since the possibility of accidental pollution is too often overlooked, consequently neither method alone should be accepted as positive, but both should be combined, indicating more certainly the probable source and effect of contamination.—*Ontario Medical Journal.*

LOCOMOTOR ATAXY.—According to Prof. Fournier the first symptoms of ataxy may be classed as follows:

1. Sign of Westphal.
2. Sign of Romberg.
3. The "stairs" sign.
4. Crossing of the legs.
5. Walking at the word of command.
6. Standing on one leg.

1. Westphal's sign is well known; it consists in the abolition of the patellar tendon reflex, and is present in two thirds of the cases.

2. Romberg's sign can be thus appreciated: The eye is an indirect regulator of motion; it helps to correct deviations in walking and maintains the equilibrium. When a patient is suspected of incipient ataxy, it will often suffice to make him close his eyes when in the erect position to verify the diagnosis. In a few instances his body will oscillate, and if the malady is somewhat advanced he will be in danger of falling.

3. The "stairs" symptom. One of the first and most constant symptoms of incipient locomotor ataxy is the difficulty with which the patient will descend stairs. If questioned closely on the subject, he will say that at the very outset of his malady he was always afraid of falling when coming down stairs.

4. The manner in which a patient crosses his legs is often significant. In the normal state a man when performing that act lifts one leg simply to the height necessary to pass it over the other, whereas in the affection under consideration he lifts it much higher than necessary, describing a large segment of a circle.

5. Walking at the word of command. The patient seated is told to get up and walk instantly. After rising he will hesitate, as if he wanted to find

his equilibrium before starting off. If, while in motion, he is told to stop short, his body, obeying the impulsion, inclines forward as if about to salute, or, on the contrary, jerks himself backward in order to resist the impulsion forward.

6. The patient is asked to stand on one leg, at first with his eyes open, afterward closed. Although man is not made for this position, yet he can balance himself pretty firmly for a little while. The ataxic will experience a great deal of difficulty and will instinctively call to his aid his other foot so as not to fall. If his eyes are closed he will not be able to stand one instant, and if not held he would fall heavily to the ground. Such are the symptoms of incipient locomotor ataxy. They will not be all present frequently, but they should be all sought for in order to avoid an error which might have grave consequences.—*John A. Robinson, in North American Practitioner.*

DIAGNOSIS OF PYLORIC TUMORS.—Rosenheim, of Senator's Clinic (*Deut. med. Woch.*, July 26, 1894), first refers to the restoration of the motor (but not chemical) functions of the stomach after pylorotomy, and he illustrates it from two cases operated on by Hahn three and a half years and three months ago respectively. In the diagnosis the symptoms due to pyloric obstruction are noted. Rare tumors not directly at the orifice may cause obstruction by spasm. Palpation will decide the position. The tumor may be displaced to the right, more often to the right and downward, but sometimes to the right and upward. The author quotes another of his cases in which Hahn found an hour-glass contraction due to malignant disease. Gastro-enterostomy was performed. The author then discusses at some length the question of adhesions to the liver and pancreas as shown by the movement of the tumor. This is obviously a most important matter in the question of operative treatment. Tumors of the stomach, intestine, and omentum can often be prevented from ascending during expiration if they are fixed with the hand at the height of inspiration. The author, however, cites a case in which this movement could not be arrested, and yet at the operation by Hahn no adhesions to the liver were found. There were adhesions to the pancreas, and gastro-jejunostomy was performed. If the movement of the tumor upward is very free, the latter may disappear behind the liver edge. Examination should be made in the knee-elbow position. Pyloric tumors move to some extent with the liver when they have been developed in a normally placed organ. They can be more readily diagnosed in women in whom displacement of the stomach occurs more frequently. Often the presence of a tumor is not necessary for diagnosis. In one case a tumor could not be felt even under the anesthetic, yet a malignant ulcerating surface the size of a two-mark piece was found at the operation. The patient died of hemorrhage from a stitch-hole in the stomach. The author thinks that, although palliative treatment can improve the condition of the patient, yet in future operative treatment will be the chief one in the majority of these cases.—*British Medical Journal.*

THE TREATMENT OF WHOOPING COUGH WITH QUININE.—Baron (*Berline klinische Wochenschrift*) reports on fifty cases of whooping cough treated after the old manner of Benz-Ungar, which they advocated in 1868. In a few children the good action of the quinine was noticed in two or three days, but in most of the children the results were shown after several days.

The first evidence of value is the lessening of the night attacks. The improvement continues until health is restored, unless the dose be too suddenly reduced. The author continues the administration of the quinine for three weeks. Relapses do not occur in children treated with quinine. In spite of the fact that the quinine was not given as regularly as directed in more than half the cases, there were only two failures noted. The treatment is of unusual value in the cases of acute inflammation of the lungs caused by the whooping cough.

Since the thorough trial of quinine, whooping cough has lost all its terrors to the author.

The proper dose of quinine is one sixth of a grain for each month of the child's age, and one and a half grains for each year, given three times in the day, at six A. M. and two and ten P. M. More than six grains three times daily is not necessary for older children. As the case improves the number of daily doses is decreased.—*University Medical Journal*.

RENAL ANEURISM.—E. Hahn (*Deut. med. Woch.*) reports a case in a woman, aged forty-nine. About two months previously she noticed a swelling beneath the left costal arch. Since then she suffered from loss of appetite, dyspeptic symptoms, and wasting, with occasional attacks of pain. A smooth elastic tumor, about the size of a fetal head, was felt, extending from the ribs to a hand's breadth below the navel. It appeared fixed in the renal region, and could be moved to and fro from this point. The urine presented no abnormality. The arteries were slightly degenerate. The diagnosis lay between hydro-nephrosis and a soft, solid, renal tumor. After two weeks and a half the kidney was first explored from the side (extraperitoneally). Two thirds of it could be felt apparently healthy. Exploratory puncture of the tumor occasionally gave pure blood. On an attempt being made to free the lower part of the kidney a profuse hemorrhage occurred, necessitating plugging. Then it was attempted to deal with the tumor by the transperitoneal method. The tumor and kidney were eventually liberated from their bed. The kidney was ligatured about the pelvis, and the whole mass separated. The subsequent course of the case was very satisfactory. The aneurism in this case was separate from the kidney, but they were inclosed in one capsule. The lower third of the kidney was flattened. A branch of the renal artery could be traced into the aneurismal sac. If the aneurism were on the trunk of the artery it would be quite separate from the kidney. If (as here) a large branch was involved, a common capsule would exist, and the kidney substance would be pressed on, though in itself intact. The author has collected five such cases. He

refers to the difficulty of diagnosis. If a tumor developed rapidly after an injury or severe exertion in a patient with arterio-sclerosis, but without marked cachexia, it should suggest renal aneurism. Rupture into the pelvis of the kidney would produce hematuria. Recovery can only take place by operation.—*British Medical Journal*.

CARE OF THE MOUTH IN FEVER PATIENTS.—Dr. Rosenbach, a German physician, makes some timely suggestions upon this subject. He strongly insists that the condition of the buccal cavity should not be overlooked in cases of continued sickness, as is too often done. Many complications of infective origin may be prevented by strict cleanliness of the mouth. The mouth should be thoroughly rinsed several times a day with tepid water, adding thereto a little tincture of myrrh, eau-de-Cologne, or a weak solution of boracic acid. Especially is such a cleansing needed when liquid foods are given, not only in the cases of fever patients, but in infant feeding as well. Where there is a tendency to bleeding of the gums he recommends that they be rubbed gently twice daily with powdered boracic acid.

In cases where coma is present the mouth should be examined frequently and wiped out with a clean, fine linen cloth. Ulceration of the mouth or tongue from the pressure of the teeth should be treated with boracic acid or a solution of chlorate of potash. Liquids should be administered with sufficient freedom to maintain the moisture of the mouth. When persons are in a comatose condition, or breathe only through the mouth, it may be covered with a layer of gauze moistened with a solution of boracic acid.—*North American Practitioner*.

PUERPERAL ACUTE ATROPHY OF LIVER.—Schreiber (*Centralbl. f. Gynäk.*) describes a case which occurred in Pavloff's wards in the Odessa Maternity. The patient was a soldier's wife, aged twenty-two, in her second pregnancy. She was admitted in labor in the eighth month. She was a stout and muscular woman, but intensely jaundiced and apathetic; the jaundice seemed to have begun five days previously. Labor only lasted seven hours, the cervix presenting. The child was alive, and the placenta and membranes followed five minutes after its expulsion. The patient complained of great tenderness in the region of the liver. The area of hepatic dullness was distinctly diminished, the spleen enlarged. The urine was acid, dark brown, very frothy when shaken, and contained bile, but no albumen. The patient died on the fourth day after delivery. The secretion of urine had diminished steadily till complete anuria set in for twenty-four hours before death. The temperature for two days ranged between 99° and 100°; on the third it began to rise very high, and six hours before the patient's decease it was above 106°. There was evidence of old pulmonary tubercle. The liver was in size one third less than normal; microscopic sections showed all the characteristics of acute yellow atrophy. The uterus had contracted well, its muscular tissue was tinged yellow, the cavity contained clot, and there were lacerations in the cervix.—*British Medical Journal*.

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OLIVER WENDELL HOLMES.

On the 7th instant, at the ripe age of eighty-five, died the man most gifted and most beloved of our profession.

Oliver Wendell Holmes was born at Cambridge, Mass., August 29, 1809. This was commencement day at Harvard, and near if not on the date of the first ovariectomy. He was the third of five children, and of a family paternally and maternally distinguished in the annals of New England.

The following facts of and comments upon the life of Dr. Holmes we quote from an admirable biographical sketch in the Boston Medical and Surgical Journal of the 11th inst.

He went to school in Cambridgeport for five years, then to Phillips Academy, Andover, in 1824, for one year, and entered Harvard College in 1825. He graduated in 1829. In 1830 he entered Harvard Law School and studied law for one year under Judge Story and Professor Ashmun. At this time he got his first "attack of author's lead-poisoning," the symptoms of which were exhibited by contributions to the Collegian, a clever college magazine.

In the autumn of 1830 he began the study of medicine in Boston at the Harvard Medical School, under Drs. Channing, Ware, Jackson, and others. In April, 1833, he went to Europe, and continued his medical studies there until October, 1835. He spent most of the time in Paris at the Ecole de Médecine, and under Louis at La Pitié. He also traveled. In 1835 he

returned home, and took his degree of M. D. in 1836 from the Harvard Medical School. In August of the same year he read his poem, "Poetry, a Metrical Essay," before the Phi Beta Kappa Society. In 1836-7 he won three of the four Boylston Prizes offered for medical dissertations, by papers on "Indigenous Intermittent Fever in New England," "Neuralgia," "Direct Exploration." The first of these essays is still a medical classic.

In 1838 he was appointed Professor of Anatomy and Physiology in Dartmouth College at Hanover, N. H. He held this position for two years. June 6, 1840, he married Amelia Lee Jackson, daughter of Hon. Charles Jackson, who was for eleven years a judge of the Massachusetts Supreme Court. Three children were born from this marriage, two sons and a daughter.

In 1847 Dr. Holmes was appointed Parkman Professor of Anatomy and Physiology in the Harvard Medical School. In 1871 the title was changed to Parkman Professor of Anatomy, and physiology was made a separate department. He held this professorship, teaching and lecturing on anatomy, for a period of thirty-five years. He was a delightful lecturer; always concise and clear, and sometimes witty even in discussing a subject ordinarily considered dry. It is fair to say that Dr. Holmes was probably the best lecturer on anatomy of his time in this country.

He was Dean of the Harvard Medical School from 1847 to 1853; University Lecturer in 1863-64; Overseer of Harvard College from 1876 to 1882. In 1882 he was appointed Professor of Anatomy, Emeritus.

Dr. Holmes joined the Massachusetts Medical Society in 1836, in 1852 he was Anniversary Chairman; in 1860 he was the orator at the annual meeting, and then delivered his well-known essay, "Currents and Counter-Currents in Medical Science; at the Centennial Anniversary Dinner of the Society in June, 1881, he delivered a poem.

In 1879 the publishers of the Atlantic Monthly gave Dr. Holmes a dinner in honor of his seventieth birthday; in April, 1883, a complimentary dinner was given to him at Delmonico's by the medical profession of New York City.

In 1889 Dr. Holmes gave his medical books to the Boston Medical Library Association, which held a reception in his honor.

Dr. Holmes received from Harvard College the degrees of A. B. in 1829, of A. M. (Hon.) in 1889, of M. D. in 1836, of LL.D. in 1880; in June, 1886, he received the degree of LL.D. from Edinburgh, of Litt.D. from Cambridge, of D. C. L. from Oxford.

In 1857, in response to an appeal from his friend, James Russell Lowell, who had assumed the editorship of the Atlantic Monthly, Dr. Holmes began to contribute to that periodical the chapters of "The Autocrat of the Breakfast Table." This was followed by "The Professor at the Breakfast Table," "The Poet at the Breakfast Table," and "Elsie Venner" ("a medicated novel").

All through his career, whether as a man of science or as a man of letters, the action and reaction of one set of gifts and one kind of training upon

other gifts and another training—to the great mutual advantage, adornment and development of each—is clearly visible: and nowhere is this more evident than in those very pages of the "Autocrat" and the "Professor." Then, if we turn to addresses and poems delivered before medical bodies or on medical subjects, the converse of the statement is again instantly recognized. The style was always worthy of the statement, and the statement rarely failed to merit the style. His essays on "Puerperal Fever" and on "Intermittent Fever in New England" may and should still be read by all who are interested in those subjects as models of literary statement and of scientific reasoning.

He has left behind him no enemies, and hosts of warm admirers who during his life guarded not that "ungenerous silence which leaves all the fair words of honestly-earned praise to the writer of obituary notices and the marble worker." He himself needs no obituary. But we shall long continue to revive our recollections of those former days when he was with us.

Though it is chiefly as a literary man that Dr. Holmes is known to his countrymen, it must not be forgotten that he was a teacher of medicine for nearly forty years, and that beside the many poems and addresses pertaining to medicine which he delivered on suitable occasions, he enriched its literature with numerous substantial contributions. In his early professional life he devoted considerable attention to obstetrics; whatever may have been the extent of his practice he gained enough of experience to enable him to write an essay on puerperal fever, which is classic in medical literature and justly entitles him to rank as "*the pioneer* in the the field of antiseptic [aseptic] midwifery in which Semmelweis afterward did such splendid work." The conclusions which Dr. Holmes formulated upon this essay in 1843 need only the addition of the suggestion of chemical antiseptic ablutions for the accoucheur's hands to put them abreast with the most advanced teachings upon this topic to-day.

But his scientific lectures and writings shrink into insignificance beside his beautiful and brilliant literary works, and the value of even these is enhanced when we reflect that they were the outpourings of a soul in love and at peace with mankind, and the ornaments of a life above reproach.

Dr. Holmes was the last of that great six sons of genius who, in the generation passed, made American scenery, life, freedom, thought, and institutions sublime and beautiful through poetry, while in their lives they attested the truth of the maxim of their greater kinsman across the sea: "'T is only noble to be good."

He goes to his grave "like a full shock of corn in his season," leaving behind him a priceless legacy, the fruitage of a full, rounded, noble, and beautiful life.

"Sleep sweetly, tender heart, in peace,
Sleep holy spirit, blessed soul,
While the stars burn, the moons increase,
And the great ages onward roll!"

HONOR TO WHOM HONOR IS DUE.

The American Public Health Association, at its last meeting, chose for its president our learned friend and colleague, Dr. William Bailey, of Louisville.

Dr. Bailey is Professor of Hygiene and State Medicine in the University of Louisville, and a member of the Kentucky State Board of Health. In both these offices he has proved an original, untiring, and unselfish worker in this department of medicine, and justly merits the honor which his Fellows have conferred upon him.

Notes and Queries.

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.—The secretary of this Association announces the following preliminary programme for the twentieth annual meeting in Hot Springs, Ark., November 20, 21, 22, and 23, 1894:

James M. Ball, St. Louis, Cases of Traumatic Cataract in Children Treated by Extraction. W. F. Barclay, Pittsburgh, Toxics. A. D. Barr, Calamine, Ark., The Philosophy of Stimulants. Charles H. Beard, Squint, with Special Reference to an Operation. A. C. Bernays, St. Louis, Conservative Surgery and what it Means at the Present Time. A. W. Brayton, Indianapolis, The Deeper Inflammations of the Skin. A. P. Buchman, Fort Wayne, Ind., Intestinal Indigestion. Robert M. Campbell, Esq., Ashland, Ohio, The Medical Expert Witness. L. C. Cline, Indianapolis, Some Observations on "Sore Throat" due to Concretions in the Tonsils. W. J. Conklin, Dayton, Ohio, The Differential Diagnosis of Coma. Geo. J. Cook, Indianapolis, Constipation. William T. Corlett, Cleveland, Syphilis, and its Relation to other Affections, Especially those of the Skin. A. H. Cordier,

Kansas City, Mo., Surgical Treatment of Uterine Fibroids; Disposal of the Pedicle. H. C. Dalton, St. Louis, Stab Wound of Pericardium; Resection of Rib; Suture of Pericardium; Recovery. Davis A. Dean, Pittsburgh, Surgical Treatment of Trachoma. J. O. DeCourcy, St. Libory, Ill., Possibilities of Medicine. Arch Dixon, Henderson, Ky., subject unannounced. Frank R. Fry, St. Louis, Quinine in Chorea. John B. Hamilton, Chicago, Report of a Case of Trephining for Cerebral Clot, with Loss of Vision; Recovery. C. H. Hughes, St. Louis, Spot Specialism. W. H. Humiston, Cleveland, The Management and Treatment of Endometritis, and the Prevention of Tubal and Ovarian Diseases. George F. Hulbert, St. Louis, Functional Stenosis; Its Relations to Malformations, Dislocations, and Flexions, and Conditions Characterized by Amenorrhea, Dysmenorrhea, and Hyperemias, with a Scientific Rationale in Therapeutics. W. S. Kerr, Mansfield, Ohio, subject unannounced. W. E. Kieley, Cincinnati, subject unannounced. Bransford Lewis, St. Louis, The Neatest method of Circumcising. J. E. Link, Terre Haute, Ind., Colles' Fracture. H. W. Loeb, St. Louis, Double Nasal Atresia, due to Smallpox. I. N. Love, St. Louis, Tubercular Meningitis. Starling Loving, Columbus, Ohio, Physicians' Prescriptions. George N. Lowe, Randall, Kansas, Traumatic Lesions of Cranium and Brain; Report of Clinical Cases. G. Frank Lydston, Chicago, Observations on Residual Uterine and Remarks on Perineal Section. Henry O. Marcy, Boston, Modern Surgical Technique. Heine Marks, St. Louis, subject unannounced. Donald McLean, Detroit, Tumors of the Neck. Joseph M. Mathews, Louisville, The Advantages and Disadvantages of Kraske's Operation. A. H. Meisenbach, St. Louis, Resection of the Knee for Separation of the Lower Epiphysis of the Femur; Case of Two Years' Standing in a Patient Thirteen Years of Age. Harold N. Moyer, Chicago, Accidents and Injuries from Electric Currents of High Potential. Frank P. Norbury, Jacksonville, Ill., The Mental Symptoms of Cerebral Syphilis: A Clinical Study. John North, Toledo, Ohio, Enlarged Tonsils and Their Treatment. A. M. Owen, Evansville, Ind., My Experience with Gold as a Therapeutic. Charles B. Parker, Cleveland, The Surgical Treatment of Injuries of the Head. Curran Pope, Louisville, Headache. Joseph Ransohof, Cincinnati, Address on Surgery. A. Ravogli, Cincinnati, Syphilis. Charles A. L. Reed, Cincinnati, Reform in the Management of the Insane and the Neurotic Viewed from a Gynecological Standpoint. Dudley S. Reynolds, Louisville, Retinitis Syphilitica. B. Merrill Ricketts, Cincinnati, The Spine and the Elevator. John Ridlon, Chicago, Infantile Paralysis. X. C. Scott, Cleveland, President's Address. S. E. Solly, Colorado Springs, Col., Climate and Tuberculosis. Albert E. Sterne, Indianapolis, Toxicity in the Production of Nervous Diseases. Leon Straus, St. Louis, Constipation from a Surgical Standpoint. R. Stansbury Sutton, Pittsburgh, Laparotomy for Pelvic Diseases no Longer Necessary. Homer M. Thomas, Chicago, Topical Treatment of the Air-Passages, with Exhibition of a New Atomizing Vaporizer. A. B. Walker, Canton, Ohio, The Importance of

Urinalysis in Diagnosis. Edwin Walker, Evansville, Ind., "Reflex Irritation as a Cause of Disease." H. O. Walker, Detroit, subject unannounced. J. T. Whittaker, Cincinnati, Address on Medicine. William E. Wirt, Cleveland, Tumor Albus of the Knee-joint. W. N. Wishard, Indianapolis, Influence of Inflammation of the Seminal Vesicles in Maintaining Gleet. E. Gustave Zinke, Cincinnati, Modern Antiseptic and Aseptic Midwifery in Private Practice.

The railroad rates for this meeting will be one fare for the round trip. A special train will leave St. Louis for Hot Springs, Sunday night, November 18th, via Iron Mountain route. A stop of several hours will be made at Little Rock, Ark., on Monday, November 19th.

It is requested that all who contemplate making this trip arrange their plans to join the official train at St. Louis, Sunday night.

399 College Avenue, Indianapolis.

FREDERICK C. WOODBURN, *Secretary*.

UNIQUE.—Mr. R., aged nineteen, presented at my office, October 27th, with a very redundant prepuce, near the end of which a large suppurating cyst with two openings was situated. He was taking one fourth of a grain of protiodide of mercury pilules, which had been ordered by his home doctor on the faulty principle that not being sure of the nature of the disease he had better take constitutional treatment as a precaution. I ordered the mercury stopped at once, and October 29th circumcised him. The interesting feature of the case lies in the fact that the young man is a Hebrew. In explanation of his phimosis he stated that his father did not believe in circumcision as a religious rite, but readily consented to its performance as a surgical necessity.

This makes the fourth case of uncircumcised that I have met with among Hebrews. Two of the other three had healthy redundant foreskins, while the third was extremely hypospadiac, and in that condition was identical in configuration with hypospadiacs generally. I have a number of times operated on adult Hebrews for the correction of deformities resulting from the ritual operation, but this is the first time on record, so far as I am aware, of the primary operation being done from a surgical necessity on an adult male of that people.

E. R. PALMER, M. D.

LOUISVILLE.

Editors American Practitioner and News:

In a report of one of your medical society meetings the subject of cancer was discussed. I do not wish to discuss, but to merely report the number of cases of cancer it has been my privilege of attending in person or as consulting physician. In the past twenty years I have seen forty cases of cancer; all dead but one. They all occurred within three and a half miles of this town, and all except one south of a line drawn from east to west; sixteen of them on adjoining farms consecutively, without any relationship by consanguinity. The cancers were 6 of stomach, 2 liver, 2 hand, 3 ear,

9 mammary, 1 mouth, 4 face, 4 eye, 7 uterus, 1 nose, and 1 tongue. Sex, 18 male and 22 female; colored 2, white 38. The cases that were operated on with the knife died rapidly. The case still living has cancer of the uterus; hemorrhage comes on frequently. My treatment is to curette thoroughly and apply Monsel's solution within uterine cavity. It has been successful so far in checking hemorrhage.

S. N. MARSHALL, M.D.

JEFFERSONTOWN, KY.

THE INFLUENCE OF ALCOHOL ON HUMAN LIFE.—The British Medical Association, wishing an exact statement of the influence of alcohol over the duration of life, charged a commission with the inquiry in three classes of subjects:

1. Total abstainers.
2. Moderate drinkers.
3. Excessive drinkers.

Observations included 4,234 cases of death in five categories of individuals, and below is the average attained by each class:

1. Abstainers, fifty-one years and one month.
2. Moderate drinkers, sixty-three years and one half month.
3. Occasional drinkers, fifty-nine years and two months.
4. Habitual drinkers, fifty-seven years and two months.
5. Drunkards, fifty-three years and one half month.

The most advanced age is attained by moderate drinkers, and the minimum by abstainers.—*Railway Surgeon, September.*

According to the British Medical Association's result, and the fact that Kentuckians are reputed to be moderate (?) drinkers of the best whisky in the world, we no longer hesitate to claim the "Colonels" not only the best judges of cornjuice, but that they live longer to enjoy it than any other race. "Here's to a long life and a merry one."

DOUBLE FEMORAL HERNIOTOMY.—Dr. S. E. Millikin, New York (*La Revista Med. Quirurg.*), reports a case of double femoral herniotomy at the advanced age of sixty-four years. Deep sutures of kangaroo tendon were used to close the crural canal, while catgut was employed for bringing together the skin wounds. The dressings were changed for the first time, on the tenth day, when union was found complete, and the superficial sutures had been absorbed. The highest elevation of temperature was 101° F., which occurred within forty-eight hours, and was attributed to the shock of the operation. Conclusions:

1. Age is no contra-indication to the employment of the radical cure of hernia.
2. Asepsis and antisepsis should be carefully observed.
3. Even in cases of strangulation, the radical cure should be attempted, if the condition of the patient warrants the delay.
4. When the truss becomes a source of annoyance, or the hernia is difficult to retain, the operation should be performed without delay, and before strangulation occurs.

Special Notices.

CLINICAL EXPERIENCES WITH SOLUTIONS OF PYROZONE.—H. C. Raymond, D. D. S., says: I take pleasure in saying that I have been using the pyrozone solutions for several months, and have found the results highly satisfactory. It is indeed gratifying to know that a drug so valuable as hydrogen dioxide has been made stable and so free from acid. This will unquestionably widen its field of usefulness in dental surgery. As a bleaching agent I have had some excellent results with the twenty-five per cent solution, and it promises to be exceedingly useful in the treatment of pyorrhea alveolaris, though I have not been using it long enough in that direction to feel justified in making any definite statements. The five per cent solution I use largely in setting crowns and bridges, its styptic qualities rendering it extremely valuable in arresting any bleeding, and in effectually stopping up the pores through which moisture will find its way. Operators in crown and bridge work who have not used pyrozone for this purpose have no idea what an aid it is in keeping the parts perfectly dry. I prescribe three per cent pyrozone for my patients, to be used as a mouth wash just before retiring, and specially urge its use to those wearing plates and crowns, or bridges, for its prophylactic qualities are, in my opinion, inestimable.

DYSMENORRHEA, the congestive kind, with stomach-ache, and excruciating headache and pain in the back, which is often seen in young girls and women with displacements, can often be relieved by Celerina and Aletris Cordial combined in equal parts.

WM. R. WARNER & CO. are in receipt of a cablegram announcing that they had received the Grand Prize at the Antwerp Exposition for the purity and excellency of their preparations. It was the highest of its kind awarded.

FALSE PAINS OF PREGNANCY:

R Dioiburnia, ʒ viij.

Sig: Dessertspoonful three times a day.

CONVULSIONS may frequently be cut short, like magic, by teaspoonful doses of CELERINA repeated at short intervals. The nausea as an after-effect of chloroform or ether narcosis may generally be controlled in the same manner.

LABOR SAVING: The American Medical Publishers' Association is prepared to furnish carefully revised lists, set by the Mergenthaler Linotype Machine, and printed upon either plain or adhesive paper, for use in addressing wrappers, envelopes, postal cards, etc., as follows:

List No. 1 contains the name and address of all reputable advertisers in the United States who use medical and pharmaceutical publications, including many new customers just entering the field. Price, \$1.25 per dozen sheets.

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The above lists are furnished gummed, in strip form, for use on the "Plymouth Rock"* mailer, and will be found a great convenience in sending out advertising matter, sample copies, and your exchanges. If you do not use a mailing machine, these lists can readily be cut apart and applied as quickly as postage stamps, insuring accuracy in delivery and saving your office help valuable time.

Send for copy of By-laws and Monthly Bulletin. These lists will be furnished free of charge to members of the Association. See "Association Notes" in The Medical Herald. CHARLES WOOD FASSETT, Secretary, corner Sixth and Charles streets, St. Joseph, Missouri.

THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

VOL. XVIII. LOUISVILLE, KY., NOVEMBER 3, 1894.

No. 9.

Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

OPERATION FOR MAMMARY TUMOR.*

BY W. L. RODMAN, A. M., M. D.

Professor of Surgery and Clinical Surgery, Kentucky School of Medicine.

I exhibit this specimen and report the case, which is interesting in some respects.

Mrs. C., German, married, aged thirty-three years; mother of three children, eldest aged six years, the youngest two. She has had trouble with the right breast ever since marriage. The breast would become tender, more or less enlarged at different times, and she has never been able to nurse any of the three children from the right breast. She said that there was never any milk in that gland. She attributed the not infrequent attacks of tenderness, etc., to repeated "colds" which she would take.

About four months ago the breast gave her a great deal of trouble, became considerably enlarged, and, when sent to me two weeks ago by a medical friend, I found the skin blood red at two points, also fluctuation in these situations, and the entire gland except at these two points exceedingly tense and hard. I was well satisfied that the trouble was inflammatory from the history of the case and the appearance of the breast. The appearance of the growth somewhat suggested sarcoma, but upon taking her temperature I found it 101° F.; it was taken several times within twenty-four hours, and always found from one to two

*Read before the Medico-Chirurgical Society, July 6, 1894. For discussion see page 343.

degrees above normal, so that I was satisfied the trouble was inflammatory and not neoplastic in character. Notwithstanding the fact that I believed it to be inflammatory, I unhesitatingly advised complete extirpation of the gland, for it was giving her a great deal of trouble. She told me that she had lost fifteen or twenty pounds of flesh in the last five or six months. In addition to the discomfort produced by the breast, she imagined herself the victim of malignant disease. So I believed that no other treatment was to be thought of.

I removed the entire breast, and did so in a way different from what I have ever done myself, or have ever seen or known to be practiced. Instead of making an elliptical incision extending from the sternum over to the axilla, I made an up-and-down elliptical incision. On account of the shape of the breast I saw that it could be removed more readily by making such an incision, and that I could better approximate the lips of the wound. I was, by making this incision, able to bring the lips of the wound together very nicely, although a very large breast was removed. I found what I had suspected, that there had been breaking down and suppuration at one or two points, but there was an exceedingly small amount of pus, not more than a teaspoonful at each suppurating focus. The breast was very hard, not unlike scirrhus, and was more vascular than any tumor that I have ever removed occupying this situation. The breast was given to Dr. Carl Weidner for microscopical examination, and he was expected to be here to-night. I simply handed him the specimen without a history of the case, and I am rather surprised to find that he has made about as accurate a report as he could have done had the history of the case been given him. No doubt the macroscopic appearance of the breast aided him greatly. He says the specimen "indicates chronic mastitis of some years' duration, but no evidence of malignancy is found." Chronic mastitis very often produces an appearance which is very much like the ordinary fibroma of the breast, and is spoken of by some authorities as diffuse fibroma, yet there is no more reason why swellings of this kind should be called fibroma than the diffuse sclerosis of the cord in locomotor ataxia should be called a tumor. We understand a tumor to be an atypical structure not the result of inflammation.

In connection with this report I may be allowed to digress and speak of one or two conclusions arrived at from experience and a reasonable familiarity with the literature of the subject. There seems to have been a great deal of writing on this subject within the last few years.

First, I think it is unfortunate that the nomenclature of tumors of the breast is in such an unsatisfactory state. Nearly all authorities agree as to the naming of malignant growths, but there are very few of them that unite in calling the different benign growths by the same name. Take the most common of all mammary tumors, the chronic benign tumor: Cooper denominates it chronic mammary tumor; Paget calls it mammary glandular tumor; it is the adeno-fibroma of Billroth; the fibroma-adenoma of others; the fibroma of Gross, Cornil and Ranvier, L'Abbe and Coyne, etc.; the adenocoele of Bryant, Cruveilhier, and others. Take each authority and you will find the same neoplasm described by a different name. You will find that in standard works there are at least a dozen different names for this form of tumor. I think this is very unfortunate, and believe these tumors should be named by the pathologist and not by the clinician.

Another point in regard to not only mammary growths but tumors elsewhere. Mr. Raymond Johnson, in a recent lecture delivered at the Royal College of Surgeons of England, has insisted upon the fact, and many others are with him, that more attention should be paid by surgeons to the gross or macroscopic appearance of a tumor at the time of its removal, rather than depend solely upon the report of a microscopist based upon the examination of a section of the growth taken at random. The history of the case with the entire growth should be given to the microscopist in all instances. It is an injustice to him not to do so. It is clear to my mind that the very best microscopist may often make mistakes if he only takes a section from the center of a growth without having seen the tumor as it originally appeared. For instance, you can generally tell whether a tumor be benign or malignant by the naked eye, if we remember the fact that benign tumors are always encapsulated, and malignant growths practically never are. The cancers are never encapsulated, but the small spindle and giant celled sarcomas may be so occasionally. With the naked eye one can tell whether the tumor is a diffuse outgrowth or whether it begins at an isolated spot in the breast or other part of the body. So I believe that this evidence is at times more trustworthy than a microscopical examination of a section taken from some point of the tumor. I think, if you will always examine a tumor of the breast particularly, and determine whether it springs from the periphery of the gland or from its center, whether it grows from the upper or under surface, whether or not it is encapsulated, if it has contracted adhesions to the surround-

ing tissues, as the nipple and skin, you will really get as accurate an idea of its benignity or malignancy as you could by an examination under the microscope. I do not mean to underestimate the value of the microscope, for I hold it to be the court of last resort. It is my practice never to remove a growth, however certain I may be as regards the nature of it, without having the opinion of a competent microscopist. While I believe that oftentimes too much reliance is placed upon the microscope, yet it is of undoubted value, and a means of diagnosis that we should always avail ourselves of. It is too seldom, I think, that you see a surgeon, after the operation is over, attempt to dissect out the growth to see whether or not it is encapsulated, undergone secondary change, or contracted adhesions to adjacent tissues. He simply sends a section to the microscopist and accepts his opinion without question.

Further, Johnson is disposed to take exceptions to the generally accepted opinion that nearly all benign growths, not only of the breast but of other portions of the body, are particularly prone to take on malignant change. Some authorities have contended that adenomata frequently undergo cancerous change. Johnson contradicts this, and says that no one has ever seen a pure adenoma bursting through its capsule, then proliferating and forming adhesions to the surrounding tissues. He states that he has never seen such a growth, and that no one has ever operated upon or reported such a case so far as he knows. He branches out, and states that this is not only his belief as regards adenomata of the breast, but of benign tumors in general, and that they very seldom take on malignant change, certainly not so often as is generally thought.

One other point which has been much discussed in the various journals within the last month or two, the treatment of breast tumors. All authorities and operators are agreed as to the treatment of benign growths; further, all agree as to the treatment of malignant disease in the first stage, that is before extensive adhesions have taken place to the skin and surrounding tissues, and before infiltration of the neighboring lymphatic glands of the axilla has taken place. Unfortunately surgeons are not at all together when it comes to the treatment of advanced malignant disease. They not only disagree most decidedly as to the mortality attending the more radical operation of invading the axilla and cleaning out all the enlarged glands with other tissues which may have been invaded. I was reading only the other day a review of Sutton's work on tumors—a work by the way which is the

best I have ever seen—by Pilcher, in which he takes Sutton to task for his position.

Many authorities state that when you invade the axilla you convert a comparatively simple operation into one which is exceedingly grave, the mortality of which is given by Sutton, Butlin, and others, as being from twelve to fifteen per cent. In his review of Sutton's work Pilcher makes the extraordinary statement that evidentment of the axilla does not add any thing to the mortality. He would remove the great pectoral muscle, all the intervening lymphatic vessels between the breast and axilla, all the axillary lymphatic glands, in fact even resecting portions of the veins, nerves, and arteries in this space. A recent writer says the mortality in such cases should not be more than one per cent. When you read this statement and then the statements of Butlin and Sutton, men who have devoted their life-work to the study of malignant disease, and who place the mortality at twelve to fifteen per cent, one is made to realize the fact that "nothing lies more than figures, except tombstones."

LOUISVILLE.

TATHAM SPRINGS—A NEW MINERAL WATER.

BY W. W. RAY, M. D.

There is a spring in the northern part of Washington County, Ky., that is making so many remarkable cures of a serious class of chronic diseases, that I think it worthy of the attention of the medical profession, and it is the purpose of this paper to make a brief study of its medical properties, coupled with a short list of clinical cases that have come under my observation.

The water wells up from the depth of near an hundred feet in the earth; flows out through a goose-neck iron pipe in a stream of about an inch in diameter. It is really an artesian well, which was drilled about seventy years ago for salt. The workmen were doubtless chagrined and disappointed when, instead of the salt water they sought, they had to abandon their work on account of the rush of a powerful stream of bright, sparkling, and apparently pure fresh water. It soon began to be claimed by some that the water had curative powers, but in a sparsely settled rural community such claims attracted little attention, and its fame spread very slowly. Many years ago, however,

a school-teacher in Springfield, who happened to be something of a chemist, made a study of the water, and wrote up the result of his investigations in the county newspaper. This still attracted no general attention.

But about four years ago Mr. U. T. M., a man widely known in the county, a man of wealth and standing, visited the springs for a case of chronic albuminuria, and after a few weeks' stay came away apparently cured. His dropsy, which had been great, had subsided, and he appeared entirely cured. Four years have passed and he is still in good health.

This case soon became very generally known, and led others to try the water for various maladies, with the result of revealing experimentally for what class of diseases the water was curative.

Interested parties finally sent some of the water for chemical analysis, and in the light of that analysis we will try and ascertain why the water relieves that class of cases which I will now present for your consideration.

I will first exhibit a few clinical cases, and then by reference to Dr. Kastenbine's analysis, which is appended hereto, we will study the therapeutic properties of the water.

Your attention has just been called to the case of Bright's disease in the person of Mr. U. T. M. I will now give you a very brief history of another case of the same disease.

Mr. W. W., of Boyle County, Ky., aged sixty-six, began to show symptoms of Bright's disease in the summer of 1861. Disease progressed in spite of all treatment, until at the end of about eighteen months, when his condition seemed almost hopeless. His dropsy was immense; kidneys acting very scantily; very weak, and apparently very near his end. At this stage in the game Dr. H. P. Cox, of Mackville, Ky., knowing the effect the Tatham water had had in the case of Mr. M., suggested a trial of it in this case. Ten gallons were ordered, and Mr. W. was instructed to drink from half to a gallon of it per day. The result was beyond expectation. In twelve hours the kidneys began acting freely; dropsy soon began to diminish, and in six weeks patient was to all appearances as well as ever in his life, and has enjoyed good health ever since. So much for albuminuria.

I will now cite you a couple of cases showing effects of the water in cases characterized by an excess of uric acid in the system. This is a subject which happens to be attracting a great deal of interest in the

profession just at this time, since we are just beginning to learn the vast importance of this pathological condition. We have known the part that uric acid played in rheumatism, gravel, etc., for some years, but we are just beginning to learn that there is a whole list of vague, ill-defined disturbances of the system due to this cause.

Mrs. W. B. had been for months a sufferer from persistent headache which resisted all the usual remedies. Finally a diagnosis—uric-acid headache—was agreed upon; she was sent to Tatham spring, drank the water freely for about a week, and came back cured of her headache, and in much better general health than she had been for years. Mrs. B. is the mother of a large family. Her age is about fifty.

Mr. J. W. G., aged thirty-eight, had been a sufferer from gravel for about seven years. Had an attack of renal colic three or four times a year during all that time. He began using the water about two years ago, and has never had a spell since.

Such cases might be multiplied, but it is only my purpose in this paper to present certain typical cases of each class which have come under my observation, so that we may have some data on which to base a study of the properties of this water.

I will now exhibit two or three cases of another class.

Mr. J. B. E., aged sixty-five, had grippe in 1890, which left him with a chronic gastric catarrh. He had been a great sufferer from that cause ever since, until on going to the spring a year ago, when he got entire relief. Appetite and digestion became perfect after a week's stay there, and the cure seems complete.

Mrs. W. W. R., aged thirty-six, was taken with an acute gastro-duodenitis in the winter of 1890. I at first considered it an ordinary bilious attack, but it failed to clear up under treatment; but, on the contrary, settled into a chronic condition, and finally became a very distressing and troublesome case. She became very deeply jaundiced; had severe and prolonged attacks of hepatic colic, which suggested the presence of a gall-stone. A long and careful search, however, failed to reveal stone, and the sequel showed that there was none, but that the occlusion of the bile-duct was due to inflammatory thickening. She became very much emaciated, being unable to eat the simplest forms of diet without bringing on those severe paroxysms of colic. The only diet allowed for the last year was skimmed milk.

She was treated, beside the writer, by Dr. R. C. Caldwell, of Bloomfield, Ky., and by Drs. Preston B. Scott and D. W. Yandell, of Louis-

ville, Ky., than whom there are no better physicians in Kentucky, but we accomplished very little or nothing toward a cure.

Finally, in the fall of 1892, knowing the analysis of the Tatham water, I took her to the spring on theory, and the theory proved correct. She drank the water copiously and improved very rapidly. When she left there, after a stay of five days, she was eating any thing she wanted with impunity, and the jaundice was clearing up very rapidly. She has kept the water on hand ever since, in fact she drinks no other. Her present health is about as good as before taking sick.

Now let us look over the analysis of this water and see if the medical ingredients contained will account for these cures.

"The carbonate of magnesia," says the United States Dispensatory, "is useful in all cases which require a laxative antacid; . . . is also an excellent antilithic when uric acid is secreted in excess." Here, then, we have a mild laxative, and an excellent antilithic. The next ingredient, and the one which gives the water the great healing virtue which we have found it to possess, is the potassium carbonate. Here, again, I quote from the U. S. P.: "It is occasionally used as an antacid in dyspepsia, a diuretic in dropsy, and an antilithic in gravel attended with red deposits in the urine. . . . It is also used with advantage in some cases of jaundice, in which it probably operates by entering the circulation and directly exciting the hepatic function."

There is one other substance found in all mineral waters, which is worthy of consideration here because of its exceeding scantiness, namely, organic matter. The water we are trying to study is exceptionally pure, having less organic matter in solution than any other mineral water within my knowledge.

Now, in the light of this analysis, we can readily understand how and why our cases of gravel, uric-acid headache, jaundice, etc., got relief from the use of the water. We can see also that copious draughts of a bland alkaline fluid would prove good treatment in catarrhs of the stomach and bowels. We thus administer a solvent for the accumulated mucus, lavage, or thorough washing out of the gastro-intestinal tract, and healing alkaline agents to the cleansed mucous surfaces.

The cure of cases of Bright's disease is rather more remarkable, but probably accomplished very much in the same way. We wash out the pus and muco-pus from the inflamed kidneys, make and keep them surgically clean, just as we would treat a superficial inflammation, and supply a bland healing diluent all in the same draught.

There is another point in relation to this disease which is deserving of mention. It is probable that many cases of inflammation of the kidneys are first induced and afterward kept up by the irritating effects of uric acid in excess. Here, of course, our alkaline water proves of inestimable therapeutic value.

It would afford me great pleasure to go more exhaustively into the discussion of these important points, but I fear I have already trespassed on my reader's time and my editor's space.

I will say in conclusion that the Tatham water is a bright, clear, sparkling water, remarkably pure, coming as it does from eighty feet beneath the surface, and very palatable. It has none of the flat, disagreeable taste of some of our alkaline waters in which the salts of soda constitute the alkali, but can be drunk with relish by a patient of the most fastidious taste or the most delicate stomach.

I think the water worthy of further trial, and shall look forward with some interest to its future.

ANALYSIS.		GRAINS PER GALLON.
Specific Gravity, 60° Fah.,	10013	
Carbonate of Lime CaCO_3 Calcium Carbonate,		7.752
Carbonate of Magnesia MgCO_3 Magnesian Carbonate,		2.341
Sesquioxide of Iron and Alumina Fe_2O_3 and Al_2O_3 Ferric Oxide and		
Aluminic Oxide,		1.173
Silica SiO_2 Silicic Anhydride, Silicic Acid,		1.002
Potassium Carbonate K_2CO_3 Potassic Carbonate,		0.930
Common Salt NaCl Sodid Chloride,		0.194
Nitrate of Ammonia NH_4NO_3 Ammonic Nitrate,		0.002
Phosphate of Lime Ca_3PO_4 Tricalcic Phosphate,		0.001
Organic Matter,		0.027
Loss in Analysis,		0.062

Total number of grains per gallon. 13.484

DISSOLVED GASES.

Oxygen and Nitrogen (air absorbed),	3.1200 grains
Carbonic Acid Gas CO_2 Carbon Dioxide,	6.3721 grains
Sulphuretted Hydrogen H_2S Hydrosulphuric Acid,	Trace.

SPRINGFIELD, KY.

REPORT ON THE NASO-PHARYNX.*

BY GEORGE E. DAVIS, M. D.

In reviewing the recent advances in diagnosis and therapeutics on this subject up to date, the limit of this paper permits the recount only of whatever has been of substantial value and material progress.

Addressing general practitioners for the most part, I shall be pleased to note facts principally of general interest, and to impress upon you the importance of a thorough knowledge of all the laws which govern

* Read at the June meeting of the Kentucky State Medical Society, 1894.

physiology, pathology, and therapeutics, and a wise interpretation of their relations to the special diseases which you are often called upon to treat. Renewed investigation, then, of these principles, and the laws upon which they are enunciated—in view of what has been done, and what yet lies beyond—is worthy your consideration.

“In Malignant Disease of the Nose” Douglas (Medical Record, Vol. 43, p. 582,) calls attention to some points in the differential diagnosis. The diagnosis of carcinoma and sarcoma in this region must be based principally on the clinical history and gross appearances, but a microscopical examination helps to confirm the diagnosis. Even then the malignancy of growths in this situation can not be absolutely established, since the subsequent history and spontaneous recovery of some cases have proven them benign. Time, general treatment, or severe non-interference have sometimes worked good results, as illustrated by the report of cases by Knapp. Hence the necessity for discretion in prognosis, and avoidance of too early surgical procedures.

It is a question as to whether malignant growths in the nose are primary or secondary. The consensus of opinion is in favor of the latter view. This point, however, is hardly of vital importance, since the treatment in either case, when malignancy is once established, is radical removal.

Passing to that most common affection, chronic nasal catarrh, we will review its pathology and treatment, with special mention of the much-used and more-abused douche and spray. Wright (Medical Record, Vol. 43, p. 39,) has ably defended the nasal douche and spray, but discreetly observes that their indiscriminate use in the hands of the inexperienced subject them to censure from the otologist, who denounces them as potent factors for evil in producing middle-ear suppuration. But while the rhinologist admits the possibility of this complication, yet he will be loth to give up measures yielding so much good when used with discretion and skill.

The pathological conditions of the mucous membrane furnish the rational indications for the douche and spray. The glandular elements suffer first. As a result of chronic inflammation the conduits of the glands become plugged with epithelial detritus and dust, and are compressed by the increased amount of connective tissue elements, extravasated cells, and augmented vascular supply. The removal of this pressure, and of these inspissated plugs from the ducts of the glands is a *sine qua non* for the restoration of the normal functions of the glands.

Wright cites that "it is a universal law in therapeutics that where a sinus can not be destroyed with the knife it must be kept open to allow exit to deep discharges. This is done by drains, or by constant syringing and douching." He announces that "we have the same condition of affairs on a microscopical scale in the glands of the mucous membrane of the nose," and concludes that "it is manifestly impossible to do more in this direction than to disembarass the mouths of these little sinuses," and "this, then, forms a rational indication for the nasal douche or spray."

When the watery douches and sprays are contra-indicated the oily sprays may be substituted.

When surgical procedures are employed no special after-treatment is required. The nasal mucous surfaces display a marked toleration of suppurative processes, and remarkable freedom from infection in said processes.

Before passing I can not but enter protest against the "soundness of the data" upon which Wright bases the "rational indication for the nasal douche or spray," and his explanation of the physiological effects of the latter. Granting that "the glandular structures are the first to suffer, and that if a section is made vertically to the surface of the mucous membrane and longitudinally through the duct of the gland, we invariably find the duct itself choked with detritus," still we maintain that it is impossible to disembarass these ducts of this detritus by the direct mechanical or solvent action obtained by the employment of the douche or spray, and that the law in surgical therapeutics adduced by the author to prove his assumption is not pertinent, for there the "drains, syringing, and douching" are directed *within* the sinus and not *over* its mouth or outlet. Moreover, the pathological conditions of other elements of the nasal mucous membrane, besides the muciparous glands, obtain as data for a rational indication of the douche or spray.

A brief review of the pathology of this condition will make plain the physiological effects of the douche and spray. In chronic nasal catarrh we encounter not only a trophic neurosis of this gland, etc., but also a vaso-motor neurosis.

Definition (Starr, Pepper's System, Vol. 2, p. 124). "It is not possible to distinguish accurately in all cases between the vaso-motor and the trophic neuroses, for while in many features they are distinct, in a large proportion of cases they occur together. But it is not possible to

ascribe all trophic changes to vascular disturbance, nor all vaso-motor changes to a defect or excess of trophic action. . . . It is always to be remembered, however, that each may give rise to the other, and that in their pathology they are closely connected."

Physiology; Local Vascular Tone. The general blood-pressure of the body is governed by the amount of blood in the system and the rate and force of the heart action. The local vascular tone of any part or organ is governed by the degree of tension of its own vessels. The condition of contraction or dilatation of these vessels is dependent upon a system of nerve ganglia located in the middle coat of the arterioles. These ganglia produce constant contraction of the circular muscular fibers of the arterioles which oppose the intra-vascular pressure and thereby maintain the equilibrium of the circulation.

Causes of Variation of Local Vascular Tone. (1) Indirectly, any cause altering the heart's action may cause, secondarily, a disturbance of the local vascular tone. (2) Directly, local irritation of the ganglia in the vessel walls may produce a variation in their tone by exciting the ganglia to increased action causing contraction of the vessels and consequent pallor, or it may inhibit the action of the ganglia, causing dilatation of the vessels and consequent flushing. (3) Reflexly, an irritant at some remote part, the impulse reaching the local ganglia through the nerve fibers, may disturb the local vascular tone.

Let us apply these principles to the pathological conditions found in chronic nasal catarrh. Here the arterioles are in a state of passive dilatation or angio-paralysis, and pressing upon the mucous glands whose sinuses are filled with detritus.

Now, the douche or spray acts directly on the local ganglia in the middle coats of the arterioles, stimulates them to increased action, causing contraction of these vessels, and thereby restoring local vascular tone.

Restoration of the local vascular tone assists resorption of the extravasated cell accumulation and pathological exudates, and by furnishing increased blood supply to the mucous glands restores their function of mucous secretion with which to flush and wash out the plugs of detritus from their ducts.

It is evident that the power which relieves the choked sinuses is secondary, and not a direct mechanical or solvent effect of the douche or spray produced by the fluid flowing over their mouths or outlets.

"Internal massage in diseases of the nose and throat" has been

enthusiastically advocated by Freudenthal, and he claims that this treatment is destined to do away to a large extent with the galvanocautery and entirely substitute the spray."

It consists in percussing the mucous membrane by rapidly vibrating a cotton-covered probe soaked in a ten-per-cent solution of cocaine. The vibrations are produced by movement of the operator's arm, or by means of an electric motor devised especially for the purpose, the complexity of which machine I will not attempt to describe.

He bases the application of this treatment on its physiological effects, and asks us to consider the same. "The principal office it fulfills is to regulate the local circulation of the blood."

However, massage can never "entirely substitute the spray," for, as I have just shown, the physiological effects of the spray tend to regulate local vascular tone or the "local circulation of the blood," therefore direct massage of the mucous membrane and the application of the spray rest upon the same basis, and the treatment differs not in kind nor principle but only in degree. Both seek to restore the normal physiological functions of the parts by restoring local vascular tone, and through this correct the accompanying pathological trophic conditions.

This report would be incomplete without reference to "nasal reflexes." *Pari passu* with the advance of our knowledge of the histology of the sympathetic system, and the physiological laws controlling same, are we able to more distinctly understand and appreciate the bonds of sympathy frequently existing between the affections of distant organs. And as each day's progress reveals some new bond, so each day increases the tendency, now prevalent, of general practitioners to specialize, and of specialists to generalize. Now every organ has its specialist to champion its rights as a fertile source of varied reflex neuroses, ranging in severity from the least enervation to those most serious nervous phenomena, as chorea and epilepsy.

That peripheral irritation of the cerebro-spinal nerves, by pressure, inflammatory action, or otherwise, may produce a distinct or referred action on accessory and even remote organs admits of no doubt. However, "it is through the sympathetic system, by the vaso-motor disturbance, that the most important manifestations of sympathy, pathologically speaking, can be traced." Bosworth directs notice to the fact that it is through vaso-motor disturbance that intra-nasal disease predisposes or produces such neuroses as asthma and hay-fever. These

cases usually present some disturbance in the equilibrium of the circulation.

It is an open question as to "whether the cure of the local condition within the nose or the counter-irritant action of the application controls the reflex." Be that as it may, the clinician has learned to appreciate that any drug or measure that controls the circulation, reflexly or otherwise, has a felicitous effect in these cases.

SALVISA, KY.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, July 6, 1894, Dr. T. S. Bullock, President, in the chair.

Dr. W. L. Rodman (Two Cases of Severe Hemorrhage, with Slow Pulse): I was called July 4th to see a young man, nineteen years of age, who had met with a very singular accident. A lot of boys had a cannon with which they were celebrating, and, as boys often do, they put an empty fruit can over the cannon, and when it went off the tin can flew up striking the boy on the left side of the neck, cutting the external jugular vein half in two. It bled very freely, and he lost probably two or three pints of blood. Dr. Proctor saw him soon after the accident, and found him bleeding very little; when I reached him there was no bleeding at all. We enlarged the wound, and found that the tin had gone in much deeper than we expected. It had severed the external jugular; it had also cut down through the sterno-mastoid muscle, making a wound fully one inch deep, and it was questionable at first whether injury had been done the internal jugular.

The most interesting feature about the case is, that notwithstanding the fact he had lost two or three pints of blood, and had bled to syncope, when I saw him he had a pulse of 42. This is the second case of profound shock after hemorrhage that I have seen with a slow pulse in the last sixty or ninety days.

About two months ago I was called to the Highlands to see a negro man who had been shot through the right lung with a rifle-ball. The history was, that a dairyman, thinking the negro had been milking his

* Stenographically reported by C. C. Mapes.

cow, shot him through the right lung. The negro walked some distance after being shot. When I reached him I never saw a man bleeding more profusely in my life; the blood was flowing out of the wound in a steady stream as large as my finger, just as steadily as it would flow from a faucet. The reason for this, I take it, was that the pleural cavity had filled with blood up to that level, and the steady stream was simply the overflow. He had lost so much blood that he was ashy pale.

His temperature at the time was 94.5° F., taken with two thermometers. This man also had a very slow pulse, under 50.

These are the only two cases I have seen showing a slow pulse after severe hemorrhage. Books on the subject say nothing about a slow pulse after the loss of blood.

DISCUSSION.

Dr. A. M. Cartledge: We do not pay enough attention to the feature of pulse in shock and acute anemia. I make a distinction between the two. I am a great believer in the fact that there should be a clearly-defined line between shock and acute anemia; careful surgeons have confounded the two conditions oftentimes, and the report made by Dr. Rodman is extremely interesting, because in both cases there is an unquestionable history of loss of a large amount of blood, whereas if Dr. Rodman had not reported these cases so much in detail, not being familiar with them, as he is, I would have been very much inclined to look upon the slow pulse as a result of shock rather than acute anemia. I do not like the term which Dr. Rodman used, shock after loss of blood, because I think it tends to further conflict these two pathological conditions. You will find that men in writing papers and authorities in books seem to have quite a variety of differences of opinion between shock and acute anemia. I think they ought to be differentiated very clearly. They are puzzling cases to me, because heretofore I have been a strong believer that if a person had a very slow pulse after injury, the slowness of pulse was the result of shock, and that if the pulse was influenced by the loss of blood it would be a fast pulse. Now, I think that, unlike a great many authorities, the pathological conditions are quite different, and that they demand almost diametrically opposite treatment in many respects. First of all, in shock we know that we have almost the same symptoms as in acute anemia: cold extremities, cold superficies of the body, yet we have the normal volume of blood in the body, but an abnormal distribution. In acute anemia we have the same cold extrem-

ities, but from a deficiency of blood, which I think as a rule affects the pulse in a very distinct way. I believe in uncomplicated shock, which is rare, because shock is almost necessarily associated with injury, and naturally hemorrhage is the most common symptom of trauma, so it is therefore extremely hard to get uncomplicated shock; in such we would always have a slow pulse. I believe, as a rule, in cases of uncomplicated acute anemia we can eliminate all element of shock. Therefore I say, that while this case lost a great deal of blood, I am inclined to believe that the mental effect had something to do with it; the sight of this hemorrhage from the jugular vein frightened the boy more or less, and while he lost a large quantity of blood, shock was a large element in the case.

I expected a year or two ago to make some experiments in measuring the loss of blood, recording the pulse, etc., in order to get at something definite in this connection; some experiments were made, but my records were not kept with sufficient accuracy to enable me to give any statistics. I have seen one case like those detailed by Dr. Rodman, where a tremendous amount of blood was lost, yet the pulse was not very fast. In the course of three or four hours, however, the patient died. It was in a case of excision of the jaw for a pulsating sarcoma, and the hemorrhage was frightful; but notwithstanding this the pulse was 80 when the patient left the table.

Dr. H. A. Cottell: Certainly the physical condition of a patient after loss of blood and that of a patient suffering from what we call shock are widely separated. In the reduction of the volume of blood the heart is laboring with an insufficient quantity, the process being something like the bailing out of a small quantity of water which is constantly running back; the movements are rapid, and we may expect rapid, inadequate heart action. In shock there is cardiac inhibition. Intermittency in some cases is well marked, while the pulsations are weak and sometimes slow. A familiar physiological experiment is to open the abdomen of a frog and produce irritation somewhere. The irritation need not be of the semi-lunar ganglia or solar plexus, but peripheral irritation will do as well. The heart will stop in systole wherever irritation is made. This is the tendency in shock.

I saw a case, I think, of combined hemorrhage and shock the other day; we often see that. A woman had excessive menorrhagia, she had lost a considerable quantity of blood. She had a small, quick pulse from the loss of blood, and I made bold to apply a saturated solution of

chronic acid to the womb, which produced pronounced shock; the pulse became very slow, and the heart behaved in such a way as to make me very uneasy for a time. There was great irritation; almost constant vomiting for twenty-four hours. The phenomena of shock, with the measure which I carried out in this case, were in accord with the experiment which I have just mentioned.

Dr. Rodman: While I do not wish to contradict what Drs. Cartledge and Cottell say, it is simply impossible in cases of this kind to eliminate the element of shock. I am led to say, however, that I do not think I have ever seen a case where there was apparently less shock from fright than in the two I have reported. The boy that I saw on the Fourth of July was very little disturbed; in truth he is feeble-minded and did not appreciate his condition. The negro that was shot sixty days ago I think was altogether the coolest man that I have ever seen in my life. He talked with me about the accident, explaining that he had made no attempt to milk his neighbor's cow, and did not know why he had been shot, etc. So far as it was possible to judge there seemed to be very little mental shock in either case.

The essay was read by Dr. W. L. Rodman; subject, Operation for Mammary Tumor. [See page 329.]

DISCUSSION.

Dr. Cartledge: I have been very much interested in Dr. Rodman's remarks, but will only speak concerning the standpoint of treatment. First, in reference to the statement of Pilcher (I have his article, but have not yet read it carefully), I believe that I have the right to question his statement from the simple reason that I have never lost a single case where excision of the breast has been done, and I have invaded the axilla in every one, whether any enlarged glands could be detected or not. The most of my cases have been advanced, and as a consequence the axillary glands were enlarged. I have removed all the lymphatic vessels in the axillary space, even cleaning out the axillary vein and sometimes the nerves. As I say, I have never lost a case, therefore feel that I have the right to say from my individual standpoint that I do think his statistics have gone too far, and that they will not hold good. However, I believe that my mortality will be a great deal more than one per cent when I reach one hundred cases. The statement that the mortality should not be over one per cent, coming from a man

like Pilcher, who has done a great deal of this work, seems a little extraordinary. I believe that the mortality in removal of the breast will be more than one per cent from surgical accidents, sepsis, and hemorrhage, which are sometimes unavoidable. Sepsis is always a dangerous feature of breast operations. In my opinion the mortality is increased very little if any by invasion of the axilla. The danger of sepsis, I believe, is less when the axilla is opened than when it is not. We all know that drainage is much better when the axilla is opened, and for that very reason more cases will die of sepsis where the axilla is not invaded.

One point in regard to the removal of the pectoral muscle: It seems to me the removal of this muscle is unnecessary, except in very advanced cases. We all know that in the great majority of instances, while the growth may extend to the pectoral muscles, the muscle, not being a secreting structure, is usually not involved, and a thorough cleansing with knife and scissors is all that is needed.

There is a point that I have practiced in the removal of the chain of lymphatic vessels which always runs direct from the growth into the axilla that I think is worthy of being commended. Formerly I made an elliptical incision in the usual way, taking out the breast and tumor, then two incisions at an angle with each other, opening the axilla, removing the lymphatic vessels and lymphatic glands. A better plan, and the one that I now follow, is to make a very large elliptical incision and remove the tumor, lymphatic vessels and glands *en masse*. However it is sometimes necessary to modify the incision according to the growth which is to be excised. I removed a tumor of the breast yesterday by the latter method.

It is unfortunate, as Dr. Rodman says, that there is not more unity of views as regards the best manner of excision of the breast, but I believe total extirpation and thoroughly cleaning out the axilla is fast gaining acceptance as being the more rational treatment. The serious question has been the leaving of such a large denuded surface. I operated upon one case where the denuded surface left was quite as large as a soup plate; no approximation could be made, yet by careful cleansing and dressing it has entirely healed, and I believe there is less danger of contamination or infection than by the superficial method.

Dr. Rodman: I fully agree with what Dr. Cartledge has said about the accidents in operations upon tumors of the breast causing an additional mortality of one per cent. It has not been sixty days since I saw

a gentleman open the axillary vein; of course it was done by accident. The patient died of septic phlebitis in a very short time. It is a very difficult thing to clean out the axilla in some of these cases where there are numerous and dense adhesions, and any one who has seen many of them realizes it fully. I am satisfied that the mortality can not be less than five per cent, even in the hands of the very best operators. Butlin, who has had excellent success in operating upon mammary tumors, registers a mortality of five per cent. In forty breast cases that he reports he had two deaths, one from tetanus and one from bronchitis or pneumonia, which came on within three weeks after the operation. There are a great many ways in which patients operated upon for mammary growths will die. I believe further that Dr. Cartledge is correct when he says there will not be very many more deaths from sepsis where the axilla is opened than where it is not, because better drainage can be secured. However, these patients do not die from sepsis as a rule; they die from shock and from hemorrhage. We can very readily understand this when we remember that malignant disease is so apt to occur in elderly persons, who can not withstand a prolonged surgical procedure.

I do not think it necessary to invade the axilla in cases of sarcoma of the breast, because sarcomas we know full well generalize, not by the lymphatic system, but by the veins, the blood current, and there is little or no need in cleaning out the axilla in operating for sarcoma, because there will be no enlarged glands. I think, however, in all cases of carcinoma of the breast, whether there be any perceptibly enlarged glands or not, especially in women who are fat, that the axilla should always be invaded. Enlarged glands can not be detected in any other way.

I think Dr. Cartledge's method of removing the growth with the adjoining enlarged lymphatic glands all in one mass is excellent practice, and follow it myself. By doing this you remove not only the mammary gland, but the intervening lymphatic vessels and the lymphatic glands at the same time. It is important to do this, because, even if you cut through the lymphatic vessels, cancer cells and juices will be liberated, and the former may infect neighboring tissues. The juice does no harm. So I think it necessary, in order to get the best results, that the mass be removed all in one piece. This, fortunately, can be done without difficulty as a rule on account of the fact that the lymphatic glands of the axilla all lie at the inner wall, where there are no

vessels and only one nerve of importance, the external respiratory nerve of Bell, hence a thorough dissection can be made without fear of doing damage. It is only in cases of the third degree, where the tissues are matted together, that danger of wounding large vessels and nerves is to be apprehended.

I wish something had been said concerning the treatment of chronic mastitis; I have removed two breasts for this condition within the last ninety days. I believe where there is long-standing mastitis, which causes pain and reduces the woman in many ways, not only because of the physical discomfort she suffers, but on account of the fact that nearly all such patients imagine themselves to be the victims of cancer, that thorough removal of the breast is the only treatment to be thought of.

Dr. J. A. Larrabee: At what time, considering the matter in the light of mortuary statistics, does the surgeon register his case as cured after removal of the breast for malignant disease? That is, when does he consider the patient cured? Does he regard the case as cured, or report it as such, immediately after operation? Do I understand further that growths of the breast, tumors as they are called, can not be regarded as malignant unless they start as such?

Dr. Rodman: Whenever a case is discharged from the hospital, say two or three weeks after operation, it is regarded as cured as far as the primary operation is concerned; but no person considers a case cured of cancer until the three-year limit is passed. Until S. W. Gross published his work, in 1880, it was generally admitted all over the world that if the subjects passed two years they would probably be free from a recurrence. Gross reported a number of cases where the growth had returned between the second and third years, and in view of his teaching the limit has been extended everywhere to three years. I read yesterday where Dr. Wyeth reports a case which had been immune for a period of seven years, then the growth returned, and he reported the woman as being moribund. This shows that even Gross' limit of three years is not enough. Wyeth reports the case in which a woman was operated upon by some one in England in 1886; she came to New York and he operated upon her in 1887; she was then free from a return of the trouble until the first part of this year, which would be seven years. Now she is dying from a recurrence of the growth. However, this is an unusual case, and if a man follows a case for three years and the trouble does not return, there is very reasonable assurance that it will never do so.

In answer to the second question, it has been shown and is taught by nearly all authorities that any form of benign growth, even fatty tumor, as insignificant as it is, may take on malignant change. Benign growths are believed to often undergo malignant change, and this teaching has been generally accepted. R. Johnson takes exception to this statement, and while he does not go so far as to state that benign growths never undergo malignant change, he thinks such instances are extremely rare. In proof of this he says that benign growths are always encapsulated, and have never been found breaking through their capsule, that is, getting outside and invading neighboring tissues. He thinks that the generally received opinion that benign growths frequently undergo secondary or malignant change is incorrect.

Dr. J. B. Marvin (*The Dangers of Bromoform in Pertussis*): I have recently had two cases which illustrate some of the dangers of giving bromoform in suspension or emulsion. About two weeks ago there were several cases of pertussis among the children at the Baptist Orphans' Home, and the house physician prescribed syrup of lemon and bromoform in the usual mixture with gum Arabic, to be taken a teaspoonful at a dose, which contained seven and one half minims of the bromoform, giving directions to always shake the bottle before pouring out the mixture. He also told them not to use the last few doses in the bottom of the bottle. One of the nurses, who had evidently not understood the instructions, gave two of these children, one aged four, the other aged six years, the usual teaspoonful dose from the bottom of the bottle. This was given about eleven o'clock in the morning. The weather being exceedingly warm the children, trying to keep cool, afterward lay down upon some rugs in the room and went to sleep. At one o'clock the nurse in charge of the room went to awaken them and could not arouse the two children in question. Dr. Frank and myself were sent for and worked with them two and a half hours before we succeeded in getting them aroused. There was not only slow respiration and feeble pulse, but impairment of all the reflexes—you could pull the eyelids open and rub the cornea without their flinching. After getting them revived, if left for a moment they would immediately fall asleep again. I roused one little fellow up and asked him if he wanted a stick of candy; he said, yes; I gave it to him, and he grabbed it and put the end in his mouth, biting off a piece, and fell asleep again with the portion bitten off in his mouth. The pulse was very feeble, but still strong enough to keep the lips red in color.

The only difference I noticed between the action of bromoform and that of chloroform was that there was not the same amount of lividity that follows the administration of chloroform; there was the same pulse, respiration, and other symptoms. The children were perfectly limp, as though thoroughly intoxicated, with staggering gait, dizziness, etc. Both recovered, however, without any serious after-effects. The query arises, if bromoform might not form a valuable hypnotic.

DISCUSSION.

Dr. Larrabee: The cases are interesting and important. Our therapeutic knowledge is always behind, and such cases so ably observed and ably reported help our therapeutics wonderfully. I think that formerly we held too strongly to the theory of brain anemia and brain hyperemia as explaining anesthesia. Drug somnia is rather a result of the action upon the nerve cells than simply a blanching or flushing of the cerebrum and cerebellum, and bromoform got in its work more rapidly by inhalation.

Dr. J. G. Cecil (Case of Hematuria): I was recently called to see an old gentleman suffering from hematuria, the cause of which was exceedingly puzzling to me, the patient finally getting well without the diagnosis having been completed. This gentleman was about eighty-five years of age. He was a very robust, large man, living a quiet life, not engaged in any business, but had always been free from disease, and was a very healthy man for his age. Without any premonition or any symptom indicating trouble about the kidneys he began to pass urine heavily loaded with blood. I had a sample analyzed by an expert, who reported that there was simply blood in the urine, probably of renal origin, with a small amount of albumen, which would of course have been explained by the presence of the blood, some renal epithelium. The probabilities are that the blood came from the kidneys; it was never clotted, thoroughly mixed at all times, and frequently very large in quantity, as much as one third in bulk. It would vary considerably as to quantity, some days being abundant, then in a few days would be reduced until it was hardly perceptible. This condition of things extended over a period of several weeks. I made a very careful examination, and there was not a single symptom indicating trouble anywhere, except the blood in the urine.

He seemed to improve under the administration of quinine for a

while, but that finally failed to relieve him; he was then put upon gallic acid, which did relieve the trouble until he passed from my care. I have heard nothing further from him, and only know that he has been in the country for about six weeks. What his present condition is I am unable to say. I gave him rather a grave prognosis, as, under the circumstances, I could not do otherwise; but I do not know to what the appearance of blood in this man's urine should be assigned.

I simply report the case briefly, and would like if the Fellows in the discussion will, if possible, enlighten me as to the cause of the hematuria in this case.

DISCUSSION.

Dr. Larrabee: There are so many causes of hematuria that it would be almost impossible to divine the cause in this case. The appearance of blood in the urine may not be blood from the kidneys, and from the history detailed by Dr. Cecil I hardly think it was from that source in the case reported. I think the most common cause in our part of the country of hematuria, unexplained by kidney lesions pre-existing, is malaria—malaria hematuria, and, as we know, still further south we have more of it.

I will relate a little experience I had in Florida during a visit to Leesburg. Of course you all know the situation of this place, so it will be unnecessary to enter into the details as to its location, etc. Upon reaching there I at once inquired as to the health of the place, and was informed that it was a very healthy town, and the services of a physician were never in demand. On Sunday I walked out, and hearing some one pounding in an old barn-looking establishment at once proceeded to ascertain what was going on. I found a man who was making a coffin; I asked if that was his ordinary Sunday occupation, and he said that he frequently had that kind of work to do. I inquired as to the cause of death of the subject for whom the coffin was intended, and was informed that a man had died of *hemorrhagic fever*. I learned that night that a drummer from Boston was taken ill, and was passing a considerable quantity of blood with the urine, pulse very rapid. Being registered as a physician I was called upon to visit him. It was said to be another case of hemorrhagic fever. It was a very healthy (?) place; it had no physician, no undertaker, and no disease, except hemorrhagic fever. I lost no time in getting out of town, and a friend who was with me was taken on the train with the same symptoms which characterized the attacks of hemorrhagic fever as had been explained

to me, frequent visits to the water-closet, passing urine loaded with blood, etc.

I am therefore inclined to the belief that many cases of hematuria may be the result of malaria, and not from lesions of the kidney, especially in our southern countries.

Dr. Cottell: I have had some experience with hematuria, and my observation is that when hemorrhage comes from the kidney the blood is very thoroughly mixed with the urine; when the hemorrhage is very great there will be a sediment in the urine which is nearly all blood. In such cases I have always found the red blood corpuscles, not simply hemoglobin, which is present in the urine of patients with hemoglobinuria. The ordinary hematuria that I have seen has usually been malarial in origin. The most useful combination I have found in the treatment of renal hematuria is quinine and iron. In a great many cases I would be willing to say that the supposed renal epithelium is from some other part of the urinary tract. Often when these supposed renal cells are closely examined they do not have the characteristics of renal epithelium; these look more like pus corpuscles with very large nuclei. In all cases of hematuria the quantity of albumen in the urine is quite large.

I suppose there are other reasons for the development of renal hematuria than malaria, but certainly in this climate malaria is one of the most common causes.

Dr. Cartledge: In my experience it is astonishing what little trauma is sometimes required to cause a very pronounced hematuria of several days' standing. I recently saw a case in consultation in which a lady, five months' pregnant, had a very decided hematuria following a slight exertion. There was a large quantity of blood in the urine for two and a half weeks, which finally passed away under the use of gallic acid.

Possibly the old gentleman referred to by Dr. Cecil had received a slight injury, which might account for the appearance of blood in the urine.

Dr. T. L. McDermott: I have recently treated an old gentleman, at least seventy-five, for hematuria. He says he has had this trouble at different times for quite a long period, but seemed to have no especial depression or discomfort from it, simply a passing of blood from the urethra without any symptoms indicating kidney trouble. I prescribed for him sanmetto, which appeared to afford some relief, as the passage of blood was greatly diminished. I have seen some cases of hematuria

which I thought were due to malaria. Dr. Cottell will remember having attended one such case with me not long since, occurring in a very robust, healthy-looking young man. There were no symptoms referable to the kidneys, except the passage of blood from the bladder. He would have spells of hematuria periodically, then the urine would clear up and become only slightly tinged with blood, afterward becoming perfectly normal. This would be followed in a month or six weeks by another similar attack. I have attended him in two attacks, and he gives the history of having had several previously. Dr. Cottell examined the urine, and in the intervals between the attacks reported traces of albumen, but no especial symptoms referable to the kidneys ever developed.

J. L. HOWARD, M. D., *Secretary.*

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

Female Aid to India ; The Opening of the Medical Schools ; Professor J. Hutchinson on Epistaxis ; The Opium Question ; Sir James Paget at the Abernethian Society ; Health of the Port of London ; Health of our Prisons ; Case of Acute Pancreatitis.

The quinquennial report showing the progress of the National Association for Supplying Female Medical Aid to the Women of India has been issued. The objects of the Association are three: (1) Medical tuition and training of women in India; (2) medical relief, including the establishment of hospitals and dispensaries under female superintendence for the treatment of women and children; (3) the supply of trained female nurses and midwives. During the five years ended the number of female students who have attended the various colleges and schools of the fund were 192, 204, 224, 261, and 224 successively. Of the 224 students in 1893, 21 were Europeans, 50 East Indians, and 153 Bengalis, Hindustanis, Mahomedans, Burmese, and native Christians. Much difficulty is still found in inducing native ladies of the higher classes to take up a medical career. The number of hospitals and dispensaries open were from 30 in 1888 to 65 in 1893. There were at the end of 1893, 13 lady doctors, 42 assistant surgeons, and 45 hospital assistants under the association. The total number of patients treated were in the years 1889 to 1893, 280,000, 411,691, 466,178, and 601,574.

At several of the medical schools attached to the metropolitan hospitals addresses were delivered on the occasion of the opening of the winter ses-

sion on October 1st. Dr. Isambard Owen, lecturing at St. George's Hospital, took for his topic the Importance of Mental Training in Medical Study. Accurate observation, he said, was the foundation of all medical work, and to it there was no royal road—only the old-fashioned way of constant, close, personal observation of case after case, under skilled supervision and systematic reduction to written or graphic records of what was observed. He urged that if school children were systematically trained into more exact habits of arithmetical perception and expression, more would be done to render the rising generation scientific than the suppression of Latin in favor of biology could possibly effect. It was also remarked that the social advancement of the medical profession of late years had been remarkable. Doctors were finding their way more and more into Parliament, into the Privy Council, and into the National Government. It was a grievance with the profession that it was not directly represented in the House of Lords, where the counsel of medical men would not only add to the efficiency of public work, but signalize the national recognition of the value of medicine to the community.

Prof. J. Hutchinson, of the London Hospital, has stated that epistaxis may be invariably arrested in a short time by placing the hands and the feet of the patient in water as hot as can be borne. In a recent discussion on the subject of epistaxis, it was divided into three varieties—juvenile, hereditary, and hereditary hepatic, and it was thought that the effect is nearly always due in childhood to latent or unnoticed disease of the liver. In the adult the hemophile form is generally associated with arthritism, and especially with the lesions of the liver caused by arthritic disease. Instead of tonics and milk diet so often prescribed, and so injurious to the liver, a speaker said alkaline and vegetable diet, with general and local douches, should be ordered. In elderly subjects arterial lesions were considered to be the chief cause.

At the International Hygienic Congress at Buda-Pesth, in the tropical section one of the chief subjects of discussion was the opium question, and there was a unanimous opinion that the anti-opium agitation was wholly unnecessary and quite unjustifiable.

Sir James Paget, in delivering the one hundredth inaugural address to the members of the Abernethian Society of St. Bartholomew's Hospital, dwelt upon the necessity for more scientific observation in general practice. Science and practice, he argued, were quite compatible. More of the detective faculty was required by medical men. He dealt at considerable length with the delusiveness of hereditary and the necessity for testing of all suppositions by experiment. "Don't think—try," he recommended as a motto to medical men. This is the sixtieth year Sir James Paget has attended this Society.

Dr. Collingridge, the medical officer for the port of London, states in his half-yearly report that 12,018 vessels were visited by the sanitary inspectors. Of these 10,267 were British, the Scandinavians being second with 674.

Cleansing was required in 417 vessels, and structural alteration in 276. The number of persons individually examined by the medical inspectors was 12,514, including passengers and crews. Dr. Collingridge pleads for by-laws to deal with the carrying of offensive cargoes up and down the river. Unsound food has been seized, including 2,328 carcasses of mutton, 16,318 cases of fruit, and 81 cases of eggs.

The report of the Commissioners of Prisons is somewhat interesting. The death-rate in the prisons was 7.6 per 1,000, and if it is considered that three-fourths of those released on medical grounds died within the year, the death-rate of those who contributed to the prison population would be fairly represented as 10.9 per 1,000. Five prisoners committed suicide during the year, of whom two were awaiting trial: two within fourteen days after reception, and the other within six weeks. These facts, the Medical Inspector remarks, confirm observations previously made, that the tendency to suicide is greatest during the early weeks of imprisonment. However, a great and progressive check on these unfortunate cases has resulted from the measures taken during the past few years, so that the yearly average number of suicides, which in sixteen years and a half ending March 31, 1878, before the prisons came under the Government, was at the rate of 89 per 100,000, has in the last year been reduced to the rate of 34 per 100,000, or by nearly two thirds. The Medical Inspector also makes some important remarks on the subject of cases of insanity reported during the last year, 354 in number. Of these 282 were recognized as insane on reception, and 17 more within a month, and were no doubt unsound in mind on entering prison. Of the residue many are reported as having been unstable, doubtful, or weak-minded when received, so that in very few cases could insanity have arisen in prison. The Medical Inspector brings to a test the allegation that those who are found insane on reception are "old prison inmates," who were probably suffering mentally from the evil effects of former imprisonment, and shows that there is no sort of foundation for this statement, for that only 20 of the 354 had been previously in prison. There is no doubt from this and previous reports that by far the largest number of cases of insanity consists of persons remanded in prisons expressly in order that their mental condition may be reported on.

The number of medical students entering at the various institutions in England this October is 552, the lowest for many years.

At the recent meeting of the Clinical Society of London, Dr. Paul gave some details of a case of acute pancreatitis. The patient, a man aged forty-three, was suddenly seized with colicky pain in the abdomen, which only lasted a few minutes. Next day there was a recurrence of the pain. During the following days he vomited three times, his bowels being confined. There was no history of any previous abdominal trouble. Upon examination the abdomen was slightly distended, but no tenderness. By manipulation all appeared to be normal. An enema unloaded the bowels of a large stool. An hour and a half later he was found to be collapsed, with cold.

clammy extremities, and radial pulse scarcely perceptible. He died eight hours later, his temperature rising to 104° just before death. Two drams of urine were passed containing a quarter albumen, granular and hyaline casts, a few blood corpuscles, no sugar. The autopsy showed the peritoneum covering the pancreas attached by recent lymph to posterior surface of stomach. The pancreas was much enlarged, and hemorrhages were particularly plentiful in the tail. The other organs were healthy. Microscopic examination of the organ showed total destruction in parts of the structure of the organ.

LONDON, October, 1894.

Abstracts and Selections.

EXTRA-GENITAL SYPHILITIC INFECTION.—The following, from the *Archiv. f. Dermat. u. Syph.*, by Dr. R. Krefting, appears in the American Medical and Surgical Bulletin: The writer of this paper has taken his statistics from the University Clinic of Christiania, Norway. During the twenty-five years ending December, 1891, 3,455 syphilitic patients were received, and 539 of them were cases of extra-genital infection. That is about $15\frac{2}{3}$ per cent of all the cases. There were 61 men, 231 women, 247 children thus infected. There was a remarkable variation in the proportion between the genital and extra-genital cases in different years, running from 5 per cent in 1891 to 34 per cent in 1875. The variation is in part accounted for by the enforcing of police control of prostitution in the latter years, a larger proportion of genital lesions being sent to the hospital. Of the 539 cases, the location was noted in 280 cases as follows:

Lips were affected in 142 cases, gums in 1, tongue in 11, throat in 58, breast in 58, chin in 1, scalp in 2, popliteal spaces in 1, abdomen in 1, and finger in 4 cases.

Of the lip lesions the upper lip was affected 76 times, the lower lip 49 times, the corner of the mouth 16 times, and both upper and lower lips once. They were always more or less crusted, and when the crust was removed there was left either an erosion or a deep wound of cartilaginous hardness, sharply cut outline, and brownish-red color. The secretion is scant and thin; induration well marked and characteristic, excepting in children, when it is often wanting. The submaxillary and other glands in the neck on the side of the chancre are enlarged and of marked hardness.

Of the 58 throat initial lesions, 36 occurred on the tonsils, 15 on the right and 21 on the left. In one case both tonsils were affected. They gave rise to difficulty in swallowing, but not constantly. The swelling and hyperemia of the tonsil; the characteristic swelling of lymphatic glands of the neck; the ulceration of the tonsil often deep, gangrenous and covered

with a grayish slough; the induration, sometimes wanting, gives the diagnosis. If both tonsils are affected, the diagnosis is much more difficult.

Of the 58 cases of breast affection, 19 times it was the right, 27 times the left, and 6 times both. The base of the nipple was the part most often affected, and it might be entirely surrounded by the lesion, though usually it extended only half way round. The lesions are usually covered with a bloody crust, which being removed exposes a dark red ulceration. Induration was always present: the axillary glands of the same side were always swollen, and sometimes the glands along the pectoral muscle.

Of the 539 cases the manner of infection was ascertained in 439 cases, and it was found that in four fifths of the cases it was by the mouth, either from eating and drinking utensils, kissing, nursing, or smoking. Only five cases were traced to pipes or cigars. Three fourths of the cases were by means of eating and drinking utensils. The course of the disease in most cases was less favorable than when rising from genital lesions.—*St. Louis Medical and Surgical Journal.*

POSTURE IN ANESTHESIA ACCIDENTS.—In regard to anesthesia accidents Dr. Hare said that it was universally conceded that after administering stimulants artificial respiration should always be resorted to as the most efficient means of resuscitation. Artificial respiration, however, would prove of little service if the head and neck of the patient were not in the proper position. He then proceeded to give a *résumé* of the researches and conclusions of Howard, of London, and stated that he (Dr. Hare) differed from the latter on some points. Howard's teachings in reference to the epiglottis were: First, that the epiglottis is apt to fall backward and close the glottis; second, that traction upon the tongue can not raise the epiglottis; and, third, that the epiglottis can only be raised by raising the head and neck. In regard to traction upon the tongue Dr. Hare said that this could be most efficiently made by means of a tenaculum inserted near the root of the tongue, and the latter should be pulled forward in the direction of the upper incisors. In these cases the tongue was more frequently at fault than any thing else, and it was a very common practice to grasp it and pull it down over the lower incisors.

Having discussed Howard's method for raising the glottis, he stated that extension as advocated by him was not practically valuable, and that by the constriction of the parts it prevented all ingress of air through the mouth, the nostrils being solely depended upon for this purpose. If, however, the head, after the neck had been extended with the hands of the operator under the angles of the jaws, were projected forward the epiglottis could always be made to rise. He then gave a demonstration of this fact on a cadaver which had been prepared by the removal of the upper part of the cranium and the brain, and by the clipping away of the basilar process. Through the opening thus made the epiglottis could be distinctly seen to rise whenever the manipulation described was made. In brief, then, the

head should always be extended and tilted forward before proceeding to practice artificial respiration.

Having again emphasized the great value of this procedure, and having referred to the various methods of performing it, he said that he had made a series of experiments to determine the relative value of the Sylvester and Marshall Hall methods. In one series of experiments the volume of air entering the lungs by the Sylvester method was represented by the figure 62, and that by the Marshall Hall method by the figure 22.

In another series of experiments the figures were respectively 18 and 18. The very great superiority of the Sylvester method, now so generally conceded, was thus demonstrated anew. In practicing the Sylvester method there was one point of great practical importance that should never be lost sight of, namely, that the feet should always be held firmly in position by an assistant; otherwise a great part of the efficiency of the artificial respiration would be destroyed.

In speaking of chloroform narcosis, he said that this agent acts mainly on the respiratory centers and the medulla. Death was generally due to respiratory failure, and whenever chloroform was administered it was therefore of the utmost importance that the character of the respiration should be carefully watched. As long as the respiratory function was carried on satisfactorily the patient was ordinarily free from danger. Of course where there was cardiac disease any powerful drug might produce a fatal result, and the heart that could perform its functions with comparative safety under ordinary conditions might suddenly fail if chloroform were given, and an unusual call be thus made upon its impaired powers. Williams had demonstrated the fact that in chloroform inhalation there is always cardiac dilatation from the very start. In conclusion, Dr. Hare said that a considerably greater amount of chloroform could be given if atropine were administered than if it were not, as this drug by its vaso-motor influence had the effect of stimulating the respiration.—*Dr. H. A. Hare, N. Y. County Medical Association.*

JACKSONIAN EPILEPSY DUE TO AUTO-INTOXICATION OF GASTRIC ORIGIN.—In the *Rivista Sperimentale di Freniatria ed Medicina Legale*, Vol. xix, fas. iv., Doctor Cristiani describes a very interesting case of Jacksonian epilepsy due to gastric intoxication. The patient was a man fifty-two years old, strong, healthy, with good family history, no history of vices or excesses; no disturbances of any of the sensory organs, no arterio-sclerosis, no malformation of head or scar on scalp; urine normal in quantity and quality. For some years he has suffered from stomach and intestinal disorders, such as loss of appetite, nausea, ructus, pyrosis, tongue coated, mouth dry and bitter, bowels constipated. Occasionally, besides these symptoms he would notice paranesthesia of the limbs, flushings, then coldness of the extremities, and such mental symptoms as depression, melancholia, hypochondriasis, irritability, cephalalgia, and vertigo.

On the morning of September 8, 1892, he had the first attack. The aura was distinctly felt, consisting of a feeling of heat in the head, anxiety and precordial oppression. He then felt creeping sensations in the arm and leg of the right side, followed by clonic spasms, first of the right arm then of the right leg, and at the acme of the attack the right side of the face would become involved. These paroxysms would last from five to fifteen minutes, with no loss of consciousness, would not fall to the ground, but, in a vacillating manner, stagger to the right. On the first day he had three attacks, then one attack every other day for two weeks. The pupils were dilated, patellar reflex exaggerated on the right side, and urine contained an excess of urea and phosphates. The treatment directed to the gastric catarrh had the effect of controlling the attacks, and in over a year they have not reappeared.—*Buffalo Medical and Surgical Journal*.

THE CONDUCT OF ORDINARY LABOR THROUGH EXTERNAL EXAMINATIONS SOLELY.—Drs. Leopold and Spörlin make a warm plea for limiting examinations made in the course of ordinary labor to the external parts, and adduce the advantages of such a course (*Medical News*). Infection is thereby avoided; the natural sense of modesty of the parturient is not offended, and careless rupture of the membranes is avoided. Skill in external examination is acquired with reasonable readiness. In the large majority of cases such examination alone is sufficient for the recognition of the position and presentation of the fetus, and for the study of the course of an ordinary labor. As there can be no objection to its frequent exercise, abnormalities of parturition may the more readily be detected early, and means of correction be promptly employed. Experience soon teaches the difference in the position of the fetus assumed in case of pelvic contraction on the part of the mother. The position and presentation having been recognized by external examination, internal examination for the determination of possible pathologic conditions of the birth canal need be but brief, and can be conducted with great care. For the attainment of this desirable result it is essential that the obstetric pupil familiarize himself thoroughly with the conditions of normal labor as determined by physical external examinations, as well as with the physiology of normal labor. Obstetric operations are principally to be taught upon the phantom.—*St. Louis Medical and Surgical Journal*.

THE USE OF SEDATIVES IN HEART DISEASE.—There were drugs, Dr. Hare said, which were entirely different from digitalis and the other ordinary cardiac stimulants, which could often be used with very happy effect. He then stated that he was accustomed to depend upon aconite, veratrum viride, and gelsemium. It was the common belief that in almost all heart troubles a stimulant was required, but he believed that this opinion was erroneous. Many gave nitro-glycerine under the impression that it was a stimulant, while in reality its action was sedative. He could not doubt

that the use of digitalis was greatly abused by the great mass of practitioners. He then related two illustrative cases in his practice. In the first, in which there was edema and marked digestive trouble, he gave digitalis with nux vomica, and in the other, in which there was no edema but a good deal of palpitation, he gave aconite. In both instances the most complete relief was afforded. In the first the heart was weak and needed aid, and in the second the heart was strong, but with irregular action.

There was a third class in which such a sedative as aconite, and not digitalis, was required. This was where there was excessive hypertrophy, and it was commonly met with in those who after engaging in a life where extreme muscular activity is called for devoted themselves to quieter avocations. The compensating hypertrophy then became excessive. He had frequently observed this condition of affairs in medical students who during their previous collegiate course had devoted themselves assiduously to athletics. In their less active life the heart became irregular in its action and palpitation was frequent on going up stairs, etc. In these cases the fluid extract of aconite in doses of one or two minims acted most satisfactorily. Rest in bed, however, was a necessary adjunct of the treatment. In cases of this kind the hearts were too large and with too powerful action for the work required of them in the changed conditions of life in which the patients were placed. Next to aconite as a heart sedative he ranked gelsemium, and in the third place esteemed veratrum viride.—*Dr. H. A. Hare, N. Y. County Medical Association.*

THE SPECIFIC GRAVITY OF THE URINE OF THE INSANE.—(*Rivista Sperimentale di Freniatria ed Medicina Legale.*) After reviewing the labors of several alienists on this point and the variance in their results, Dr. Umberto Stefani, of Padova, made a careful investigation and studied for one or more months sixty cases of mental diseases with the following results: In all cases of acute insanity, independent of special forms, the specific gravity ranged from 1030 to 1040, and sometimes higher. If the form is of short duration the specific gravity will fall as the psychic symptoms diminish, until it reaches the normal, or even lower. When the remission of the psychic symptoms is followed by an exacerbation, the specific gravity of the urine will again increase.

If the course of the disease is long and tends to become chronic, the density of the urine ordinarily will, after a time, commence to diminish until it reaches normal or falls below. In cases of imbecility, paranoia, senile dementia, and paresis without spells of excitement, the specific gravity of the urine is not increased; but if continued, frenzy and excitement develop, and the specific gravity will increase to 1030–1040.

The writer throws out the suggestion that, in the examination of the urine we have an index, probably, of the prognosis and course of the disease. A table of charts, showing the exacerbations and remissions, adds to the interest of the paper.—*Buffalo Medical and Surgical Journal.*

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DIPHTHERIA.

After much groping in the dark the clinician is beginning to read the story of membranous sore throat in the clear light of science with results that may yet rob diphtheria of many of its terrors. An enemy who under cover of night we see but dimly, and whose operations are mysterious, is a harder foe to cope with than one whose temper and ways we understand, and whose doings are exhibited in the full light of day. And it does seem that abundant as may have been our clinical experience with membranous affections of the throat, we have not till recently had any thing like a clear understanding of their etiology, nor have we been able to bring to bear upon them effective means of treatment.

The following from the British Medical Journal is a fair summary of what has been added to our knowledge of this subject in the last year or two :

The report of the medical officer to the Local Government Board for 1891-92 contained a report by Dr. Klein showing that by bacteriological investigation the cases in which scarlet fever was complicated with membranous sore throat could be divided into two classes, one of which was truly diphtheritic and the other was not, with this general result, confirm-

ing what had been discovered before, that membrane occurring in the early days of scarlet fever was not diphtherial, whereas that which came on in the later stages and in convalescence was true diphtheria. On March 15th of this year a paper was read before the Medical Society by Dr. Wethered, on the Diagnosis of Diphtheria by Bacteriological Cultures, giving details of the process and its results. The medical officers of the hospitals of the Asylums Board have endeavored to differentiate the mass of membranous throats coming before them into the true and the false types. . . . No doubt the pathologists at the various general hospitals have also carried out investigations on the same lines but on a smaller scale, and the Clinical Research Association is ready, for a small fee, to examine membrane forwarded to it and report by telegram. What, however, has not been done, we believe anywhere except New York, is to create a municipal organization by which as part of the ordinary sanitary machinery of the health department, the bacteriological diagnosis of diphtheria shall be put at the disposal of the profession. . . . All that the doctors would have to do would be to obtain the tube, inoculate it by means of a sterilized swab supplied in a separate tube along with the culture medium, replace the cotton plug, and return the tube to the depot. At a certain hour every afternoon these tubes would be collected from all the stations and taken to the central laboratory, where by noon the next day the diagnosis would be ready to be dispatched by letter or telegram, according to the urgency of the case. The importance of the matter is greatly increased by the assertion of Dr. Biggs, in which he merely confirms the observations of Prudden and Baginsky, that a very large number of cases of membranous sore throat are not due to the bacillus of diphtheria, but merely to ordinary cocci, and that the mortality of such cases is practically *nil*. In New York they do not accept these non-bacillary cases at the hospitals, and on the other hand they do not discharge those of true diphtheria until bacilli cease to be found, sometimes not for several weeks.

From the foregoing it appears that much of the so-called diphtheria is really only so called, and that we must make room in our nomenclature for the term pseudo-diphtheria or, better, non-diphtheritic membranous sore throat.

The result of this will be to rob some very self-satisfied doctors of much of the fame which they were supposed to have acquired in the treatment of diphtheria.

It may be humiliating to admit that we have been inaccurate in diagnosis, but the new accession to our knowledge will give us some courage in prognosis, and more confidence in therapeutic measures.

Apropos of the antitoxine treatment, to which all eyes are just now anxiously turning, the British Medical Journal says :

We are advised that at present the antitoxine may be obtained from Messrs. Minter, Lucius, and Beunig, Höchst-am-Main, Frankfort, or from the Institut Pasteur, Rue Dulot, Paris, the dose being ten cubic centimeters injected under the skin. The British Institute of Preventive Medicine will, it is hoped, shortly be able to supply it to medical men who apply for it. A word of warning is necessary, as otherwise much disappointment may result from its use. We are informed by one who has specially studied this point that the "antitoxins" already in the market differ considerably in strength, and that whereas some prove very efficient, others by no means fulfill what is claimed for them. Thus some antitoxins are ten times as efficient as others. We must remember that the making of antitoxins is yet in its infancy, and that the strength of a solution can only be measured by experiments on guinea-pigs. The mode in which it is estimated is by finding out the dose of diphtheritic poison which will kill a guinea-pig of a certain weight in a certain time. The strength of the curative serum will be estimated according to the dose of the serum necessary to protect an animal into which ten times the fatal dose of diphtheria poison has been injected subcutaneously, the standard solution or immunity units being a serum 0.1 cubic centimeter of which will protect a guinea-pig inoculated with ten times the fatal dose. If a dose ten times smaller, or 0.01 cubic centimeter will protect, the serum may be said to contain ten immunity units; while if 0.001 cubic centimeter protects, it contains 100 immunity units. It is evident that this is a rough way of estimating the strength of a curative serum; and, moreover, the question is still further complicated by the fact that we do not accurately know as yet how much serum is necessary to cure the disease in a child or adult. The importance of further clinical and experimental study on this subject can hardly be overestimated, and can only be undertaken by men highly skilled in clinical medicine and bacteriological science. In every case of diphtheria or suspected diphtheria treated by the curative serum the following points must be attended to: (1) The bacteriological examination of the membrane must be made, and the diphtheria bacillus isolated. (2) The treatment must be carried out with curative serum of a well-ascertained strength, the age and weight of the child, the day of the disease, the dose injected, and clinical manifestations accurately noted. (3) The bacteriological examination must be made at intervals until the respiratory passages of the patient are found to be free of the diphtheria bacillus.

Notes and Queries.

OLIVER WENDELL HOLMES.—The London Lancet says of Dr. Holmes editorially: The death of Oliver Wendell Holmes must necessarily appeal with particular force to all who follow, as he followed, the profession of healing. While the purely literary world is lamenting the loss of the brilliant essayist, the delicate poet, the spontaneous humorist, the ever-sympathetic, ever-appreciative colleague, we are lamenting in him the medical man of letters. In so doing we are not debarred from admiring sincerely, even fervently, his great and fascinating qualities, but it is in his character of a physician that he makes special appeal to us. And this is the more right that it is in the character of physician that he himself makes many of his most intimate claims upon the attention and affection of his readers. The medical men of letters are a comparatively small band. The names of Smollet, Thomas Browne, and John Brown at once occur to us; Keats and Goldsmith both served an apprenticeship to our art, and more than one living physician is a good as well as a popular novelist; but the union of medicine and letters is rare. Oliver Wendell Holmes was not only an example of this rare class, but in many respects he was a unique example; for in him the physician—now as anatomist or physiologist, now as psychologist, now as diagnostician—was ever present and ever speaking. He wrote no book without drawing largely upon his scientific experience; he displayed in all his literary workmanship, in thought as much as in expression, an accurate tolerance—a capability of taking the large view, with a resolve to be correct about small things—that we make bold to say, as he would often proudly say, had been largely developed by his particular training; and many of his wittiest little parables and paraphrases—many of the most characteristic sayings of those three charming rulers of the breakfast-table—were the direct outcome of his medical learning.

Si sic omnes! For the public nowadays is suffering from a surfeit of medicine in its literature. Heredity and the transmission of physiological or psychological taints; sexual problems; problems in mental pathology form the essence of the work of a large school of writers. Sometimes the work is well done and sometimes extremely ill done. Now and again the great romancer will, by a few illuminating words, supply a real contribution to the scientific side of psychology; more often we are asked to solace ourselves after the day's work with long-drawn questions pruriently put and left unanswered by a string of pompous deductions. And so we say: Ah, if all were like the Autocrat of the Breakfast-table! Would that all our advanced novelists would recognize, first, that it is necessary to know before

instructing and to see before leading, if the ditch is to be avoided; and, second, that there is wisdom in restraint and an art in remaining silent; that furibund descriptions of animalism, if accurate, are inappropriate in general literature, and that to display to common gaze a dissection of the morbid imaginings of the sick mind may be an act of positive indecency. Oliver Wendell Holmes was a man who knew. Whither he would lead his readers might always be content to follow without fear of the ditch. His science was sound, his wisdom indubitable, and his powers of observation and introspection were of the acutest. And how did he use them? Not by shirking the responsibilities laid upon him by his possession of exceptional knowledge, as great men have before now done through fear of giving offense; on the contrary, his whole work is pervaded by his particular learning. And not by persistently presenting to the mental eye the dissected body or the sick soul, the charnel-house, the bordel, or the asylum; on the contrary, his multifarious writings are absolutely free from the taint of nastiness. Oliver Wendell Holmes used his beautiful endowments in the highest way for the good of all, neither burying his talents nor prostituting them. He was removed by a lovable, modest, sympathetic nature from all possibility of writing the harmful; he was removed by a true and highly cultivated artistic sense from the common error of spoiling a picture by overloading it with unnecessary details; lastly, and chiefly, he was removed by his assured place as a man of scientific education, undoubted learning, and equally undoubted literary genius from all temptation to medical or linguistic display. From this position, with the conscientiousness of the skilled workman and the unpremeditated charm of the poet, he poured out broad lessons of human sympathy, and preached a genial, yet shrewd gospel of kindness.

THE TREATMENT OF DIPHTHERIA BY ANTITOXIN.--If the claim made by its advocates for this method of treatment prove true, its discovery will be the greatest boon to humanity since the days of Jenner and his immortal contribution to the cause of humanity. In the Kaiser Friedrich Children's Hospital in Berlin, before the use of antitoxin, in 1,081 cases of diphtheria then treated, the mortality was 38.9 per cent. Since March, of 128 cases treated with antitoxin, the mortality has been but 13.2 per cent.

Dr. Cyrus Edson, Commissioner of Health, of New York, has made the following statement:

"As attested by Professor Koch and those associated with him, in 250 cases the antitoxin treatment produced the results noted below:

"When the treatment was applied within the first twenty-four hours, all cases were cured. When cases were inoculated on the second day of the disease, 97 per cent recovered; when inoculated on the third day, 87 per cent recovered; on the fourth day, 76 per cent; on the fifth day, 57 per cent. By the treatment any person who has been exposed to the disease can be made free from further hazard if the symptoms have not been devel-

oped. If cases are treated within thirty-six hours, the mortality can be reduced to practically nothing. It can be seen how wonderful the treatment is when it is understood that the average mortality of true diphtheria is 27 per cent."

Caution is, however, to be exercised as to the kind of antitoxin employed, and those who intend to use the remedy should investigate this most carefully.—*Brooklyn Medical Journal*, October, 1894.

APPENDICITIS.

Have you got the new disorder?
If you have n't, 'tis in order
 To succumb to it at once without delay.
It is called appendicitis—
Very different from gastritis,
 Or the common trash diseases of the day.

It creates a happy frolic
Something like the winter colic
 That has often jarred our inner organs some.
Only wrestles with the wealthy
And the otherwise most healthy—
 Having got it, then you're nigh to kingdom come.

Midway down in your intestine,
Its interstices infestin',
 Is a little alley, blind and dark as night
Leading off to simply nowhere,
Catching all stray things that go there,
 As a pocket it is simply out of sight.

It is prone to stop and grapple
With the seed of grape or apple,
 Or a soldier button swallowed with your pie;
Having levied on these chattels,
Then begin internal battles
 That are apt to end in mansions in the sky.

Once located never doubt it,
You would never be without it,
 It's a fad among society that's gay;
Old heart failure and paresis
Have decamped and gone to pieces,
 And dyspepsia has fallen by the way.

Then stand back there, diabetes,
For here comes appendicitis,
 With a brood of minor troubles on the wing;
So, Vermiform, here's hoping
You'll withstand all drastic doping
 And earn the appellation, "Uncrowned King."

—*Texas Physician.*

FOR PULMONARY TUBERCULOSIS.—

Benzoyl guaiacol, 1 dram;
 Powder of digitalis, 3 grains;
 Eucalyptol, 24 minims;
 Extract of gentian a sufficient quantity.

Mix. Make twelve capsules.

Dose: One capsule 4 times a day.

This combination is used in certain cases of pulmonary tuberculosis in which it is desired to act upon the heart in order to improve the pulmonary and general circulation, and to stimulate the bronchial mucous membrane and respiratory tract in general. The special indications are feebleness of circulation, coldness of extremities, slight irregularities in temperature, frequent cough, either unproductive or with profuse expectoration of a muco-purulent character, and the physical signs of catarrhal processes in the bronchi, the alveoli, or small vomicae. If carefully made, there is no difficulty in the incorporation of the eucalyptol.

Tinct. of ferric chloride, 2 fld. drams;
 Diluted phosphoric acid, 3 fld. drams;
 Churchill's Syrup of Hypophosphites enough to make . . 3 fld. ounces.

Mix. Dose: Two teaspoonfuls in a tablespoonful of water, after meals, thrice daily.

This formula, originally introduced by Prof. J. Solis Cohen, is of much benefit as a tonic nutrient in the early stages of pulmonary tuberculosis in anemic and scrofulous subjects, and in the prevention of the development of tuberculosis in predisposed persons worn out by nursing relatives in the last stages of consumption, or otherwise run down in health. If softening have occurred, a few drops of creosote (Morson's) may be added to the dose. Inhalations of compressed air and systematic overfeeding must likewise be employed if it is desired to bring about recovery.—*Philadelphia Polyclinic*.

TREATMENT OF CHANCRE.—Dr. Willard Parker Worster claims (*Journal Cut. and Genito-Urin. Dis.*) that chancre is cured in the shortest possible time by the use of peroxide of hydrogen (Marchand) without pain or detention from business. The sore is sprayed with the peroxide under sixty pounds pressure and dressed with iodol powder, the same treatment being repeated. All the chancres reported were not by any means innocent, as some presented unmistakable signs of phagedena. The showing made by the author is certainly remarkable and worthy of trial.—*O. D., St. Louis Medical and Surgical Journal*

THE STATUE TO DR. SIMS.—The bronze statue to Dr. J. Marion Sims, the money for which was subscribed by members of the medical profession in various parts of the country, was unveiled in Bryant Park, New York City, with appropriate ceremonies on October 20th. Addresses were made by Drs. George F. Shrady and Paul F. Mundé, and the statute was accepted for the city by Mayor Gilroy.

Special Notices.

HABITUAL MISCARRIAGE.—R. Reece, M. R. C. S., Eng., 1851, L. S. A., 1832, Walton-on-Thames, England, says: I used Aletris Cordial in a case of painful menstruation. It was most valuable. The wife of a minister suffered much, and had had three miscarriages. Prescribed Aletris Cordial. She has, for the first time, gone her full time, and was safely confined with a male child. I also prescribed it to a relative suffering with leucorrhea for years. Great relief from pain, and the discharge much less. In the first case related it was truly a godsend to her.

DR. R. B. GILBERT, Lecturer on Diseases of Children and Demonstrator of Anatomy in the University of Louisville, writes: "I have prescribed ANTIDIPSOLE in four cases of chronic liquor habit; three of the cases are entirely cured, and I believe the other case would have been cured had he continued the treatment. I find that ANTIDIPSOLE leaves no unpleasant effect upon the patient, but rather acts as a tonic both physically and mentally."

"COCA" has maintained its reputation as a powerful nerve stimulant, being used with good results in nervous debility, opium and alcohol habit, etc. The highly variable character of the commercial drug makes it uncertain, however. ROBINSON'S WINE COCA we believe to be a uniformly active article, it being prepared from assayed leaves, the percentage of Cocaine being always determined by careful assay.

I HAVE given PEACOCK'S BROMIDES a thorough trial, and have since then invariably prescribed it in preference to other preparations of its kind. During my trip across the ocean I gave it to several passengers who suffered a great deal from seasickness, with very beneficial results.

J. WILMOTH, PH. D., M. D., New Orleans, La.

A VALUABLE PRESCRIPTION for eczema, lichens, herpes, itch, and other skin affections:

R Pineoline, 2 OZS.

Sig: Apply twice daily.

This prescription can be filled by any retail druggist in the United States.

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

SYSTEMIC ANESTHESIA FOR EXAMINATION OF THE RECTUM, SIGMOID FLEXURE, AND LOWER COLON.*

BY W. O. GREEN, M. D.

Fellow of the British Gynecological Society; Chief of the Clinic for Diseases of the Rectum, Kentucky School of Medicine; Visiting Rectologist to the Masonic Widows' and Orphans' Home; Consulting Rectologist to the Louisville City Hospital; Associate Editor of the New Albany Medical Herald; Assistant Rectal Surgeon to the Kentucky School of Medicine Hospital, etc.

It seems a strange fact that, in the rapid scientific advancement of rectal surgery in recent years, relatively little has appeared in the writings of modern authorities concerning the employment of anesthesia for diagnostic purposes. That the full extent of pathological conditions of the rectum is frequently obscure, and often impossible to determine by the means ordinarily employed before the patient is placed on the table for operation, seems too well established to justify argument. No one, I believe, will deny the great responsibility that duty requires every physician to assume for a most accurate and thorough investigation of each and every case, yet the experience of most close observers will furnish instances in which intelligent practitioners have been willing to proceed blindly into operative measures for trivial conditions when there co-existed a train of obscure symptoms which should have demanded more extensive primary examination. It is true, all necessary information may frequently be obtained from subjective symptoms, inspection, and digital and speculum examination; but there are many instances in which the patient may be highly sensitive, the disease

*Read at the June meeting of the Kentucky State Medical Society, 1894.

located high in the rectum, or in the lower portion of the sigmoid flexure, the abdomen may be tense or thickened by extensive deposits of fat, and the surgeon can only verify the existence of tenderness, an inflamed mucous membrane, or the presence of some insignificant discharge. The employment of an anesthetic under these circumstances will often enable one to pursue the examination with little difficulty, for the location of the disease is frequently placed at easy command and the surgeon may encounter few obstacles in making accurate diagnoses.

I had recently brought to my attention a case in which the symptoms and digital examination furnished sufficient information to make a diagnosis of ulceration with internal hemorrhoids. On account of the severe pain and spasmodic condition of the anus, resulting from the manipulation, the examination was not continued further. When the patient was placed on the table for operation dilatation of the anus revealed, in addition to the troubles already enumerated, procidentia and a fibrous structure in the pouch of the rectum. Not being prepared for the latter conditions, the surgeon could only deal with the hemorrhoids and ulceration, leaving in reality the principal disease unattended, and, when a second operation was subsequently proposed, the patient and his family absolutely declined it.

At the outset it must be presumed that the surgeon will not undertake this method unless the symptoms and history indicate the possible existence of some serious affection, and it has been established that all other means have proven inadequate or else impracticable. Moreover, unnecessary haste should always be avoided, as it oftentimes happens that careful observation over a longer or shorter period of time will make quite clear symptoms that were at first thoroughly unintelligible or created apprehension for grave organic trouble. Unless the case is manifestly an urgent one it would therefore be well to see the patient several times, and to employ only such means as are practicable before resorting to anesthesia.

The possibilities and entire extent of the usefulness of general anesthesia as a means of diagnosis has not yet been clearly defined, but it is quite certain that, in the light of our present knowledge, it offers a field for more thorough investigation, and its more frequent employment is palpably a necessity, while its neglect may lead to grave error.

It is scarcely in the scope of this paper to discuss the preparation of the patient, farther than to state that it is always desirable to have the lower bowel emptied of its contents before commencing the exam-

ination. This point, I trust, has been sufficiently dwelt upon in my paper upon the "Care of Patients for Surgical Measures in Rectal Diseases." (New Albany Medical Herald, May and June, 1894.)

In the majority of cases chloroform is probably the best agent that can be employed for the examination. It is rapid and more certain in its action than ether and less apt to be followed by the extreme and prolonged nausea which frequently gives rise to violent retching and straining.

In conducting the examination the surgeon should proceed according to the circumstances of the individual case. For the purpose of convenience, however, the cases may be divided into three classes; first, those which require examination of the anus and lower portion of the rectum; second, those in which the disease is supposed to exist about the middle or upper portion of the rectum; and third, those in which there are symptoms pointing to pathological changes in the sigmoid flexure or the lower portion of the descending colon.

The first class will include those patients who from a sense of extreme delicacy or modesty can not consent to an examination, and those in whom there is marked tenderness or a violent spastic condition of the anus, which would render all manipulation of the parts both intolerably painful to the patient and thoroughly unsatisfactory to the surgeon.

We hear a great deal of false modesty existing among patients who refuse examination when they apply for treatment, but it must be admitted that in most sensitive women diffidence is an innate part of their dispositions, and it should always be delicately considered as such by the surgeon. This feeling does not prevail wholly among women, but men sometimes declare themselves averse to any such procedures. On one occasion a prominent physician of one of our large western cities, who had suffered several years from a painful rectal trouble, assured me that he had continued to endure the disease because of the great repugnance he had always felt even for an ordinary examination. Likewise, in dispensary practice, I have known patients to run the gamut of rigid examination in almost every department and then harbor distressing and even dangerous diseases rather than submit to rectal examination. I can not, therefore, think it a just commentary to declare this feeling one of false modesty. I believe the judicious surgeon must be constantly awake to a dignified regard for such psychical conditions, as it will sometimes happen that in no other way will he be able either to gain the confidence or spare the diffidence of his patient. With many of these people anesthesia solves the problem, and when it becomes

necessary to make a diagnosis, especially in young and nervous unmarried women, the advantages offered by this method, it seems, should at once force themselves upon us.

The tenderness and spasm of the diseased anus or lower rectum may sometimes be overcome by the employment of cocaine, but this agent is not always reliable, and not infrequently it is directly contra-indicated, or it may be that the disease is in such a locality that the proper administration of cocaine would be thoroughly impracticable. A systemic anesthetic may then be employed with signal benefit.

In proceeding with the examination of the first class of patients, unless the disease is situated about the anal orifice, where separating the parts firmly will expose the full extent of the trouble, or there is an atonic condition of the muscles, the sphincters should always be thoroughly dilated.

It is well to bear in mind that when the anus is dilated profound anesthesia is absolutely necessary, for the sphincter muscles of this portion of the body are probably the last of the entire muscular system to yield to the influence of the agent. The nerve distribution to these muscles is very extensive, and there is maintained an intimate decussation between the cerebro-spinal and sympathetic systems, which are in communication with the centers of distribution for the abdominal and thoracic cavities. Any great amount of manipulation about the rectum and anus must therefore indirectly produce an impression upon the pneumogastric nerve and the organs of its ultimate distribution. Should the anesthesia be only partial, shock to the pelvic centers may be transmitted to the systems higher up and affect respiration and circulation to a degree which may prove distressing in the extreme.

The method of dilatation which seems most satisfactory I have endeavored to describe in an article entitled "A Surgical Method for the Treatment of Internal Hemorrhoids." (*American Medico-Surgical Bulletin*, March 1, 1894.) Dilatation, I believe, is a matter of so much importance in this form of examination, that I shall take the liberty of quoting a few lines, and venture to hope it may not prove unworthy of attention.

The patient is placed in the Sims position on a hard bed, couch or table, near a window admitting a strong light. The operator "anoints his index fingers with vaseline and introduces them into the anal orifice, carrying the tips up until they impinge upon the upper border of the the internal sphincter. By firm, steady, and continuous pressure the

fingers are slowly separated in opposite directions. This stretching is repeated at right angles to the first points of manipulation, then in another direction, and so on entirely around, first using two fingers and then four, until the sphincters are thoroughly dilated and perfect relaxation is obtained. When this is properly done the anus is made patulous, and its interior as well as two or three inches of the rectal pouch are brought into view for primary inspection." Should the parts not be brought sufficiently into view, a speculum may be supplemented, which will cause the entire anus and lower rectum to appear plainly mapped out. By digital exploration the surgeon may then detect the diseased structures of the anus and lower two or three inches of the rectum together with the condition of neighboring organs surrounding the rectum.

The second class of cases, namely, those in which the disease is supposed to exist about the middle or upper portion of the rectum, will require anesthesia either to bring the parts into view or reach the point of disease with the fingers. Likewise the rule for regarding the sensitive and spasmodic condition of the parts as well as the modesty of the patients must be observed here.

Many writers speak most favorably of the systematic employment of bougies without anesthesia in many of these cases, and in some instances when skillfully used fairly accurate diagnoses may be recorded. But for anatomical reasons their accuracy may generally be doubted, and the vast number of perforations that have occurred, even at the hands of experts, should amply justify an uncertain regard for the safety of this method.

The procedure to be recommended should commence with a preliminary dilatation of the anus, and if the disease is found to exist beyond satisfactory reach of the finger or speculum, the surgeon will grasp the wall of the rectum firmly with a long, angular volsella. A second volsella is fixed in the opposite wall and gentle continuous traction instituted. Remembering the movable nature of the upper portion of the rectum in health, it can be readily understood that this will effect an invagination, and, should the meso-rectum be very long or much relaxed, quite a great deal of the bowel may be brought close to the anal orifice. The utmost care and gentleness must always be exercised, for, while this method when judiciously practiced may reveal much valuable information, it is not without danger.

The mesentery is frequently very short or the disease may be of such

a nature as to bind the rectum firmly down to the pelvic cavity, when all attempts at invagination will prove quite ineffectual. The surgeon must then look for other means of reaching the diseased portion of the organ.

This brings us at once to the question of introducing the entire hand into the rectum. There seems to be some difference of opinion as to the advisability of this procedure. Simon of Heidelberg, who perhaps first described the method, considered it entirely free from danger, while Allingham adds the limiting clause that a small hand is absolutely the prime requisite for a successful attempt with this maneuver. Kelsey and Weir, of New York, declare that a hand measuring seven and a half inches in most instances can be passed into the rectum easily and with little danger of rupture to the organ or a subsequent permanent incontinence. Kelsey tells us also that a hand "measuring more than nine inches is unfit for the purpose." In a series of experiments practiced on eight dead subjects, Cripps, whose hand measures seven and a half inches, was unable to effect an introduction in two instances; in two cases the rectum was ruptured; while in the remaining four the parts yielded readily and sustained no injury. It is likely, however, that in the living subject, by reason of the almost constant presence of mucus, the natural elasticity and contractility of the rectal walls, and the absence of that flabby relaxation characteristic of dead tissue, the parts are more tolerant to the procedure than in the cadaver.

With the physical advantage of a small hand—measuring six and three quarter inches—I have repeatedly employed the maneuver on the living subject without a single instance of any ill effects following. But not a few cases have been encountered in which such a procedure would have been manifestly impracticable and undesirable. My observation and experience would certainly justify the opinion that in selected cases manual examination of the rectum with a hand measuring seven and a half inches or less can be practiced with safety. Should the hand exceed this size it will generally be extremely cramped, and the operation will usually be not only unsatisfactory but dangerous, while the limited information that may be obtained is more than counterbalanced by the chance of a complete rupture of the organ.

The form of manipulation to be employed is a semi-rotary movement alternating with limited flexion and extension. The hand should be fully extended and made to take a rounded form by bringing the end of the thumb in contact with the palmar surface of the second joint of the little finger. When the narrowed sigmoid flexure offers

obstruction to the onward progress of the hand an advantage may sometimes be gained by slightly withdrawing the hand and extending one or two fingers through the presenting aperture.

In some instances where the hand is small it will be possible to carry the exploration beyond the rectum well into the sigmoid flexure, or even at times into the lower portion of the descending colon. But in the majority of available cases the hand will become engaged at a point opposite the third portion of the sacrum, when, for anatomical reasons, it will be obviously hazardous to employ force to pursue the examination farther.

While the size of the hand is to be regarded with vital importance, the imminent necessity of gentleness and a consideration for all pathological changes in the coats of the bowel must under no circumstances be forgotten. The small hand forcibly or awkwardly used becomes quite as formidable as the large one, while certain structural changes not only contra-indicate manual examination, but frequently render some of the simpler methods exceedingly dangerous.

It is important to remember that extensive irrigation of the bowel following this procedure may cause undue dilatation and coincident rupture. The plan of treatment to follow should therefore consist of small doses of opium, together with rest in bed for at least two or three days, while purgation is strictly withheld for the same length of time.

Lastly, when the diseased condition exists in the sigmoid flexure or lower portion of the descending colon and the methods already mentioned are obviously of no value, where the abdominal muscles are too tense, or the walls too thick or tender to reveal adequate information through palpation, this, the third class of cases, will demand exploratory laparotomy. For this procedure, on account of the limited space the surgeon is compelled to work in and the impossibility of finding the bowel when it runs an abnormal course, or the difficulty of identifying it in the lumbar region, it is better to make the incision in the inguinal region.

This may generally be made two and a half inches in length and an inch and a half to the inner side of the anterior superior spinous process of the ilium. It intersects at right angles an imaginary line drawn from this process to the umbilicus, which line divides it into two equal parts. When the abdomen is opened search is instituted for the diseased point, and, should an operation be deemed essential, necessary measures looking to the cure or amelioration of the disease can be at

once instituted. Otherwise the bowel should be returned to the abdominal cavity and the incision closed in accordance with the usual method of dealing with these wounds. Should there be no evidence pointing to the approximate location of the disease, the incision may be made in the median line of the abdomen.

In conclusion permit me to say, that if the surgeon has been careful to elicit the symptoms, inspect the parts, and make a speculum and digital examination, in a large proportion of cases he may be led to suspect certain diseases, which he can either verify or disprove by the use of an anesthetic. He can make such preparation as he thinks the supposed ailment justifies, and at the same time explain the situation fully to the patient. The patient's consent must then be obtained for such measures as the surgeon may deem expedient, which enables him freely to exercise his skill and at the same time take advantage of a single anesthesia for examination and operation.

In a certain other proportion of cases the patient may decline treatment, the condition of the parts may not justify surgical measures, or the disease prove inoperable, when the surgeon can employ the anesthesia only for diagnostic purposes.

In either instance the patient has had a prior understanding of the purpose and possible outcome of the procedure, and must be prepared for the results that circumstances require. This precaution is always necessary, as it must serve to protect both the physician and his patient from any subsequent misunderstanding.

LOUISVILLE.

A REVIEW OF SOME OF THE CONDITIONS WHICH FAVOR IMMUNITY FROM THE INFECTIOUS DISEASES.*

BY A. STEWART, M. D.

It is not my purpose in this paper to discuss either the infectious diseases or the agents producing them, but rather to view as briefly as possible some of the conditions modifying the action of some of these agents on the living organism. In doing this, however, some space has been given to nomenclature and definitions, familiar to all it is true, but deemed necessary in this connection in order as far as possible to avoid repetitions and explanations.

* Read before the Madison County, Kentucky Medical Society, July 17, 1894.

Various micro-organisms, chiefly to saprophytes, while causing the fermentation and decomposition of animal and vegetable matter, generate certain poisons, formerly called ptomaines, from *ptoma*, *corpse*, as they were first discovered in dead organic matter. But, as many of them were afterward found to be non-poisonous, the word "toxines" was substituted for the poisonous ptomaines. Many of these toxines, even when separated from the organisms producing them, give rise to grave disorders when introduced into the system. The alarming and frequently fatal outbreaks of sickness following the eating of decomposed meat, fish, sausage, fermented milk and cheese, especially canned meats and fruits, are often due to the presence of these toxines. The same is probably true in most cases of ice-cream poisoning, although it is frequently attributed to the corrosive muriate of zinc and tin from the vessels.

Such toxines, when excreted by micro-organisms (parasites), in the living economy, as in man or animals, are called infections and the diseases produced thereby infectious diseases. While some local irritation and perhaps, indirectly, some local inflammation may arise from the presence of these micro-organisms in the tissues, and probably still greater disturbance may arise when they are present in great quantities, especially in the blood, from the extraction and the appropriation to their use of the oxygen from the tissues, yet doubtless in most instances the chief source of danger arises from the presence of these toxines.

Some bacteria excrete toxines, and then after a varying period excrete antitoxines, or produce such chemical changes in the tissues as give rise to the antitoxines. This is similar in many respects to the process in alcoholic fermentation. When the alcohol, which is the product of fermentation, has reached a certain percent of strength it stops the further growth of the yeast cells and fermentation ceases at once. A typical illustration of the antagonism between the toxines and antitoxines, or toxalbumens as some of them are called, by reason of their possessing different chemical properties, is seen in croupous pneumonia, and is believed to account for the termination of that disease by crisis or lysis as the case may be. If the antitoxines are of sufficient virulence to overcome the diplococci or their toxines at once, the diseased process terminates by crisis, or, if they are only partially overcome, the termination is by lysis.

Temporary immunity from the action of the diplococcus pneumoniae, often lasting six months, may be obtained in experiment animals, either by the subcutaneous or intravenous injection of the glycerine extract of the diplococcus itself. Offspring born during this temporary immunity are also immune. The blood serum of animals thus rendered immune not only produces immunity when injected into the circulation of susceptible animals, but actually cures the disease after it has developed.

Another toxine, called pyrotoxin-bacteria, has been extracted from bacteria, which it is claimed is different from either the toxins or toxalbumens. It is said to be common to all pathogenic bacteria, and to possess the active principle upon which the fever in all infectious diseases depends. The action of the poison depends upon certain conditions, and a variation in these conditions causes a variation in the fever, though the poison in each is the same. A few of the toxins (of typhoid fever and diphtheria), and a few antitoxines (diphtheria, tetanus, and erysipelas) have been isolated and analyzed.

Animals suffering from diphtheria inoculated with the toxalbumen of diphtheria get well, or if inoculated first they fail to take the disease after repeated exposure. Although immunity from diphtheria in man has not yet been obtained, yet it is confidently claimed that injections of the blood serum of animals rendered immune very much modifies the course of the disease, and very recent experiments seem to show that in the early stages of the disease it acts as a specific. Rabbits suffering from anthrax (splenic fever) injected with the virus of erysipelas recover, while those infected and not so inoculated invariably die.

The virulent virus of erysipelas modifies or entirely cures sarcoma, and to less extent modifies the course of carcinoma. The more virulent the virus the more effective will it be. The addition of the cultures of the bacillus prodigiosus also renders the virus more effective.

In 1890 Professor Koch announced the discovery of a toxine in old cultures of tubercle bacilli, which, after being mixed with sixty per cent glycerine extract and filtered through a Chamberlain-Pasteur filter, he called tuberculin. It was claimed that this tuberculin cured tuberculosis in guinea-pigs, cured lupus in man, and produced decided reaction in all tuberculous subjects. Subsequent experiments, however, while they in the main confirmed all these claims, showed that instead of benefiting it often proved detrimental to tuberculous subjects. Other

modifications have since been made which apparently produce characteristic effects without causing an elevation of temperature, but, except for the above-mentioned uses, however, and for diagnostic purposes, neither the original tuberculin nor any of the modifications thereof has so far proven of any practical therapeutic value.

A writer in the *New York Medical Journal* for January, 1894, states that the New York State Board of Health has used it for diagnostic purposes in fifteen thousand cases of suspected tuberculosis in cattle, and that the diagnosis was confirmed in nearly every instance when the cattle were killed. A still later writer, in the same journal, I believe, states that recent observations have given rise to renewed apprehension in regard to the use of cooked meat and boiled milk of tuberculous animals. As, even after the most thorough cooking, they still cause an elevation of temperature when eaten by tuberculous persons, and also by experiment animals. Tuberculous animals fed on such meat or milk grow rapidly worse, but when a change of diet is made a rapid change for the better is often observed almost immediately. This disturbance, however, is not believed to be due either to the presence of the bacilli or their spores, but rather to their active principle, "tuberculin."

The poison of hydrophobia, taken from the chief lesions of the disease in the central nervous system, medulla and first portion of the spinal cord, injected into a vein of a dog or rabbit sets up a virulent form of the disease in fifteen or twenty days, whereas the usual period of incubation is six to eight weeks or longer. After passing through twenty-five generations of such inoculations the virulence is increased by regular gradations till the disease is produced in eight days. Twenty-five more such injections, which is called the fixation period, reduce the period of incubation to seven days. If the spinal cords of animals thus treated be dried for fifteen days in the sun, or for the same period in a sterilized vessel containing a small amount of potash, the virus is so attenuated that it becomes perfectly innocuous. Dogs inoculated with this attenuated virus, and then by degrees with that less and less attenuated till that which has been dried only two days is reached, are rendered immune from the most virulent virus of hydrophobia.

Men, recently bitten by a mad-dog, inoculated with this attenuated virus and then with that which is progressively stronger up to that of five days' desiccation, never have hydrophobia, neither from previous nor subsequent exposure. Virus stronger than five days' desiccation, at one

time used for the more virulent form of wolf-bite, had to be discontinued. More recent investigators claim that the virus can be still further attenuated by heat and dilution until it not only gives immunity, but cures the disease after it has developed. Others, with equal positiveness, claim that the serum of the blood of animals rendered immune actually cures the disease after it has developed, and also renders such animals immune from further danger.

Tetanus is cured, it is claimed, by injections of the toxalbumen of tetanus. It is certain that susceptible animals are rendered immune from the disease by the injections of either the toxalbumen of the serum of the blood of animals having had the disease or having been rendered immune by inoculation.

The modification of smallpox by being passed through the cow, and the immunity secured by vaccination with the bovine virus, is too familiar to receive more than this passing notice, except it may be of interest to mention the important fact that during the harmattan winds, which blow from the northeast on the west coast of Africa from November to February, smallpox is arrested and successful vaccination is impossible. A culture of the anthrax bacillus may be so attenuated by heat as to render it innocuous, and render susceptible animals injected with it immune from the disease. Immunity is also produced by injections of sterilized cultures of the toxins of the bacillus.

As a rule, other things being equal, it may be said that whatever opposes absorption modifies the action of the toxins. If a large quantity of water be injected into the vein of a dog and immediately thereafter poison be injected subcutaneously, the hydremia prevents the rapid absorption of the poison and intoxication takes place slowly. On the other hand, if a large quantity of blood be taken before the injection, the poison is absorbed rapidly on account of the artificial thirst of the tissues. During pregnancy the increased formation of blood and high vascular pressure is opposed to absorption, and, other things being equal, the pregnant state is to that extent opposed to infection. But the depletion after delivery favors absorption and therefore favors infection.

A very striking illustration of the influence of the toxins on the tissues is seen in the immunity from syphilis secured by mothers who give birth to syphilitic children. If the disease is transmitted to the child through the spermatozoa, and the mother at the time of the birth of the child is free from taint, and the disease develops in the child

after birth, it may infect the nurse but not the mother, though a syphilitic ulcer on the mouth come in contact with an abraded nipple.

Persons of pure African blood possess almost perfect immunity from syphilis on their native soil in central Africa, although persons of mixed blood have it there as elsewhere, and the negro loses his immunity when he leaves there. In other climates negroes and white persons are perhaps equally susceptible to the disease, yet it is believed to be much milder and more amenable to treatment in the colored than in the white race. By some it is believed that the severity increases just in proportion as the African blood becomes contaminated with the Caucasian blood. The native Icelander and Greenlander, at home, are entirely immune from syphilis, though the Scandinavian and Eskimo from whom they respectively descended have been great sufferers from the disease.

In many instances long and continued residence in certain climates gives greater or less immunity from many diseases incident to such climates. While it may be true that one attack of malaria predisposes to another attack, and long residence in malarious districts gives rise to a malarial cachexia, yet there is indisputable evidence of more or less immunity from malaria being obtained by long residence in malarious districts. The negro is less susceptible to malaria than any other race, yet it requires continuous residence to secure any thing like perfect immunity. The American negro is comparatively free from malaria in some of the Southern States, and some of the African tribes are entirely free from the deadly African fever, yet if they change places they each become liable to the disease common in the country to which they emigrate. The creoles of the Southern States and negroes of pure African blood, wherever found, are comparatively immune from yellow fever. Typhoid fever is less common and less severe in tropical and sub-tropical regions than in colder latitudes, and continuous residence in such countries gives a greater or less immunity from the disease. The natives of New Caledonia are almost entirely immune from typhoid fever, and when they have an attack it is much lighter with them than with new-comers. The disease is common and fatal among European residents in Algeria, yet the native Arabs are almost entirely immune. No climate gives immunity from tuberculosis, but it is much less common and less severe in some climates and altitudes than others. It has been demonstrated by Loomis and others that the gouty, and perhaps rheumatic, diathesis is to a limited extent antagonistic to tuberculosis. A large percent of cicatrized tubercular lesions found at autopsies have

been in persons known to have had the gouty diathesis. It is believed that the excessive acidity and reduced alkalinity antagonizes the toxins of tuberculosis and favors the formation of fibrous connective tissue, which is such an important factor in the healing process.

But I will not further prolong this paper by reciting well-known clinical evidence of immunity, but close with a brief reference to the phenomenon which is much less understood. For the relation of the organism to its medium in the living economy is so intimately associated with the chemico-histological structures, so interwoven with the vital and physical forces, and so closely related to the fundamental principles of biological science that so far no satisfactory explanation of the phenomenon of immunity has yet been given. Many plausible theories have been advanced, the principal of which are:

(a) The first attack of certain diseases destroys or removes from the system certain agents essential to the development of the specific organism of that disease. (b) That while developing in the system the micro-organism generates certain antitoxines inimical to that special organism, which remain in the system and prevent other invasions of the same organism. (c) To each generation of cells are transmitted certain properties and characteristics peculiar to the preceding apparent generation, and that once the tissues become accustomed to the disease through one attack, "they acquire an educated capacity to resist the encroachments of the same bacteria through successive generations." (d) That owing to its peculiar chemico-histological structure the cell free blood plasma or serum possesses certain germicidal properties, as evidenced by the rapidity with which bacteria escape into the tissues from the blood when injected into it, and from the immunity from certain diseases secured by the injections of the blood serum of refractory animals. (e) The leucocytes (white blood corpuscles) act as phagocytes and destroy pathogenic organisms as they enter the tissues.

Of these it seems to me that the last two, and in some instances perhaps the last three, taken together with some elucidations and modifications, are the most plausible and nearest in harmony with the latest bacteriological developments. The difference in the susceptibility of different races to the influence of the infectious diseases in the same climate and under similar circumstances evidently depends upon such differences in the details of the finer structures and vitality of the tissues as constitute the difference in the races. And the difference seen in the susceptibility of different individuals of the same race under

similar conditions depends doubtless upon still more minute differences in these structures.

In a series of experiments Pfeiffer demonstrated that certain chemical substances exert a marked influence over the movements of micro-organisms when brought into close proximity to them. To this action he gave the name chemotaxis. If the chemicals attracted the bacteria, the action was called positive chemotaxis; if they repelled them, negative chemotaxis; if they exerted no influence over them, they were called indifferent substances. This knowledge was utilized by Hess in his series of interesting experiments with organisms and leucocytes. He placed cultures of anthrax bacillus between thin glass plates (Ziegler's), and then inserted the plates into the tissues of animals known to be susceptible to the disease, and watched the results. If the cultures were weak and contained only a few bacilli, the leucocytes, from the vessels in the vicinity, gathered in great numbers and surrounded the organisms in the space between the plates. Many were seen to enter the leucocytes and disappear. But if virulent cultures, containing large quantities of the bacilli, were used very few leucocytes were seen. These observations seem to show that the theory of Metschnikoff is only partially true, and depends largely upon certain conditions not taken into account in his exposition of the phagocytic hypothesis. This was further elucidated by Buchner, who succeeded in extracting from the bodies of certain bacteria and from the juices of necrotic tissue substances possessing powerful positive chemotactic influence over certain bacteria. From these observations he claimed that instead of antagonism there was a mutual chemical affinity existing between certain bacteria and leucocytes. That the antagonism is between the bacteria and the cell free blood plasma, and to escape from their disagreeable surroundings when introduced into the blood they flee to the leucocytes for refuge. These the bacteria in many instances ultimately overcome and set up disease in their midst. In support of this view is cited the well-known affinity of the spleen, the home of leucocytes, for certain bacteria when introduced either into the blood, lungs, or subcutaneous tissues. Some of these disputed points have not yet been settled, but it has recently been ascertained that the proteid substance found in the blood, called cell globulin, possesses certain germicidal properties which are especially marked in animals, as rats, whose blood possesses a high degree of alkalinity, and is believed to account for the immunity of these animals from anthrax.

Vaughan has recently made some very interesting experiments with the nucleins of cells, which are known to be rich in phosphorus and to possess certain powers of reproduction or recuperation after partial decomposition, and which he showed to possess certain germicidal properties. He thinks the germicidal property of blood serum depends upon the presence of nucleins, which are furnished by the multinuclear blood corpuscles. Rabbits and guinea-pigs, being first treated to an injection of two-per-cent solution of yeast nucleins, were rendered immune from virulent cultures of diplococcus pneumonia, if the inoculation followed immediately after the injection. The longer the treatment with the nucleins the more complete was the immunity. Four cases of streptococcus diphtheria, twelve cases of membranous amygdalitis, and an ugly rodent ulcer of the leg, the latter having resisted all other treatment, were successfully treated with the nucleins. In some cases the temperature was elevated, but in tuberculosis it was lowered. It is claimed that the nucleins are non-poisonous, and owe their good effect, not directly to any germicidal property, but to the stimulation of the leucocytes, whose function it is to destroy invading pathogenic organisms and prevent disease. Thus it seems that whatever may finally be accepted as the true explanation of the phenomenon of immunity, we are now safe in saying, (a) that whatever increases the number or virulence of pathogenic organisms or reduces the number or potential energy of the leucocytes enhances the opportunities for infection, and, *per contra*, whatever reduces the virulence or number of such organisms or increases the number or potentiality of the leucocytes, favors immunity, and reduces the opportunities for infection; (b) that in the light of recent events we are justified in believing that we are on the very threshold of wonderful discoveries in curative and preventive therapeutics, and that in the near future we may confidently expect immunity, by vaccination or otherwise, if not from all infectious diseases, at least from such as protect by one attack their subjects from further attacks of the same disease.

RICHMOND, KY.

NUCLEIN.*

BY FRANK C. WILSON, M. D.

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Histology teaches us that the body is made up of a mass of cells of various shapes and forms, each composed of a membranous sac or enveloping membrane inclosing a fluid or semi-fluid mass in which, in many instances, can be demonstrated one or more nuclear spots. Every organ is formed by the aggregation of a mass of similar cells. The functions of the organ are accomplished by the action of the individual cells, each cell being itself a complete chemical laboratory controlled and regulated by a vital force residing within itself and emanating possibly from the nucleus. Within this laboratory are manufactured products which are essential and important to the system. In the individual organs we have stationary workshops or cells all working together in the elaboration of a common product, the secretion of the organ. In the blood current we find certain cells, notably the polynuclear cells or leucocytes, which elaborate products modifying the constitution of the fluid. These are floating or migratory laboratories carried to all parts of the system, and which can be massed in immense numbers at any point needed and upon the shortest possible notice.

If we study the phenomena resulting from the introduction into the system of the tubercle bacillus we find that soon the invader is surrounded by an array of leucocytes and a regular pitched battle ensues, upon the issue of which depends the fate of the subject. If the rapidly developing and multiplying tubercle bacillus succeeds in breaking through the line of defense, soon colonies are sent out, other areas invaded, and the same contest for supremacy inaugurated, the resistance offered becoming weaker and less effectual until a complete surrender seals the doom of the unhappy victim. Sometimes the result is different, and the invading germ is destroyed, the system protected, and a state of health assured. It is an undeniable fact that there is in the system an inherent power of resistance able to protect against the invasion of disease germs, and, even when they have obtained a foothold or have for a time overwhelmed the system, to cast them out and restore a condition of health. Whether this is accomplished by a sort of personal cell prowess in a hand to hand encounter, or is secured at long

* Read before the Louisville Medico-Chirurgical Society, October 26, 1894. For discussion see p. 390.

range by a subtle material destructive to the germs, elaborated at a distance by the cells and rendered effective by the all-pervading circulation, we may not be able at this time to determine.

That the serum of the blood possesses germicidal properties has been shown by many observations and experiments. That this property resides in a substance that can be and has been isolated has been shown by such men as Vaughan, McClintock, and Aulde in this country, and many others in Germany. This substance is nuclein, and is described as a compound proteid substance, which, when decomposed, yields nucleinic acid and one or more of several xanthin bodies, adenin, guanin, sarkin.

Nuclein may be extracted from various sources, and while the phosphorized element, the nucleinic acid, is probably the same in all there may be some variation in the base combined with it. The nucleins have a remarkable property of being able to resist peptic digestion, and advantage is taken of this in the process of separation from other proteid substances.

The available sources from which nuclein may be obtained are yeast cells, yolk of egg, the spleen, the blood, the testicles, the bone marrow, the brain substance, and the thyroid and thymus glands. Probably any active animal or vegetable cell would yield nuclein. The question naturally arises, can we utilize this knowledge in our daily conflict with disease? Can we by the introduction into the system of this substance, prepared or isolated from other sources, supplement deficiencies in the *vis medicatrix naturæ*? That in many instances, such as the so-called self-limited diseases, nature does succeed in ridding the system of the invading germs is a conceded fact. As instances of this we may mention pneumonia, typhoid fever, and the various eruptive fevers. Can this result be hastened by the exhibition of increased quantities of the material which no doubt finally accomplishes the result? The inquiry suggests itself, whether the nuclein secures immunity by a direct germicidal effect or by stimulating some organ whose duty it is to protect the system against invasion. Vaughan sought to answer this by a series of experiments, in which he found that animals by a course of nuclein injections were rendered immune to the diplococcus of pneumonia, but that the simultaneous injection of a much larger quantity of nuclein failed to prevent a fatal issue from the injection of the diplococcus. The inference drawn from these experiments was that the immunity secured was not due to the direct germicidal action of the

nuclein alone, but to its effect in stimulating other organs or cells whose duty called them to protect the system against disease. The relation which nuclein bears to the antitoxine of diphtheria, recently brought forward, I can not now discuss, but may do so at some future time.

I have no doubt that the effect observed after the use of Brown-Séquard's testicular fluid was the result of the nuclein contained in it. I have for some months been much interested in the journal accounts of the use of nuclein, and I have myself been using it with gratifying results in a variety of cases and with almost uniformly good results. In several cases of malarial fever its effect has been prompt and decided. In a number of cases of convalescence from typhoid fever the rapid improvement following its administration has been noteworthy. In tuberculosis a marked amelioration in many of the symptoms, such as cough and expectoration, followed its administration, and the patients expressed themselves as feeling better. If the conclusions deduced by Huber from his experiments be true, that the subcutaneous injection of nuclein increases the number of white blood corpuscles, then we may have in this method of treatment a valuable adjunct in combating tuberculosis in its initial stage. If what I have said will awaken an interest in nuclein it will have served its purpose. I shall continue to use it, and hope at some future time to take occasion to tabulate and analyze the cases in which I have used it.

LOUISVILLE.

THE SCARCITY OF PATIENTS.—There may be some comfort to the many physicians who have felt the long-continued "dullness" in their practice in learning that it is not a local stagnation, but that the same conditions are being felt in other parts of the world. English medical journals speak of the "marvelous health of the country," and the large number of physicians who have attended the many congresses without being missed, so few are the patients. An Edinburgh correspondent of the Medical Press writes recently, "that in that city it was a vacant vacation with a vengeance; there was absolutely nothing stirring, and he knew of one practitioner acting as *locum tenens* for seven others on their holiday, who, notwithstanding this weight of responsibility, yet found ample time to play golf every day."—*Boston Medical and Surgical Journal*.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, October 26, 1894, Dr. T. S. Bullock, President, in the chair.

Dr. A. M. Cartledge: This patient is twenty-five years of age, and presents an interesting history. I have known him five years. The most interesting point in his history is the fact that in 1888 I treated him, in conjunction with another physician, for an attack of appendicitis. He had what proved to be a large abscess which ruptured into the bowel—one of the natural terminations of appendicular abscess. The question at that time was whether the abscess was connected with the liver or the appendix. It was treated on the expectant plan, which was more in vogue then than now, and broke, as I said, into the bowel with seeming recovery. He was six weeks in bed. It is a particularly interesting case, from the fact that it is the only one of the kind I have had the opportunity to follow up.

You will observe that he is not what you would call well-nourished; he is not a very vigorous man; he is subject, especially in the summer time, to diarrhea, and several times he has had severe cramping spells, the pain always being worse in the right side. During the past summer he has had frequent mucous discharges; he would be patched up by astringents, but in a short time would have trouble again. Last night he noticed little blood clots and green specks of matter in the actions. Whenever he eats grapes, tomatoes, or things containing small seeds he is made much worse, but this of course would apply equally to an ordinary intestinal indigestion.

I did not examine his abdomen in these five years until yesterday, when I was called upon to see him for an attack of diarrhea which had lasted one week. I found, upon examining the region of the appendix, that there is a mass which on deep pressure is tender—evidently the adhesions around the long-diseased appendix. This enlargement is about five inches long and about two inches wide.

The case demonstrates one of the multiple phases of the disease. Here is a case that probably would have been considered cured by one of the spontaneous terminations; and yet this man is to-day more or

less diseased from the old appendicitis which terminated in one of the ways by which it is supposed a natural cure is effected. The point I would like to make is this: That chronic and intermittent diarrheas, or so-called intestinal indigestion, are often the result of a chronic suppurative condition of the appendix. Last summer I saw a man who was treated for six months for chronic diarrhea. He was thought to have some rectal trouble, and was sent to Dr. Mathews for examination. He gave no history of appendicitis, yet I could feel deep down an indurated mass around the appendix, and I am sure that the appendix was the cause of this man's diarrhea. In many of the so-called cases of intestinal indigestion an examination of the appendix will often give great assistance.

Another thing which I wish to call attention to is the fact that if in these five years the man had died in a German hospital, where they say evidence of appendicitis is found in eighty per cent of autopsies, this would have been recorded as another instance of appendicitis which had gotten well.

Dr. W. L. Rodman: I have a specimen, removed yesterday—and there are several interesting features connected with it and the operation—a testicle removed from a young married man, thirty-two years of age, who was in robust health and without any suspicion of tubercular or syphilitic taint. He began to suffer pain in the right testicle two years ago. There was no enlargement that was appreciable until February last; since then it has been larger and smaller at various times. When I first saw him two weeks ago, with Dr. Orendorf, I found his right testicle twice or thrice as large as the left; it was also of stony hardness. We diagnosticated multilocular cystic disease, and advised its removal. He went to his home in Henry County, but came back to the city day before yesterday, and the testicle was removed on the following day. It was removed without entering the tunica vaginalis. The cord was freed, transfixed, and ligated, and a second ligature of cat-gut placed around the cord high up. When the testicle was examined we found five distinct cysts, some of them being quite large. Cutting through the testicle proper we found it disintegrated, and the epididymis filled with cheesy tissue resembling tubercular pus. This, I take it, was tubercular disease of the epididymis. The case illustrates a point which I have often made in this Society, that tubercular disease of the testicle always begins in the epididymis.

So much for the specimen. There was no hemorrhage at the time of the operation, the cord being carefully tied. It is said that secondary hemorrhage occurs more often after castration than any other simple operation. I was hurriedly summoned at 9 A. M. the following day. I found a large quantity of blood in the bed and between the patient's legs, and the dressings completely saturated. I found his scrotum about as large as a child's head and perfectly black; the penis was almost as large as my wrist and almost black. I quickly removed the dressings and drew down the cord, thinking the hemorrhage was from it. In this I was mistaken, as it was a general oozing from the scrotum. I suspected that he was a "bleeder," and afterward found such to be the case. A year ago he bled to syncope from a small wound on the hand which had not cut any vessel.

An interesting point in connection with the case is the fact that although he lost almost two pints of blood he had a pulse of 59. This is the third case of quite extreme hemorrhage that I have reported to this Society in the last three months in which, notwithstanding the fact that the patients had lost a great deal of blood, the pulse was very slow. At the time these cases were reported it was suggested by several gentlemen taking part in the discussion that possibly it was due to shock. Such could not have been the case. This man did not know he was bleeding, or that his condition was an alarming one, so that the element of shock or fright could not have had any thing to do with lessening his pulse-rate.

The essay was read by Dr. F. C. Wilson; subject, Nuclein. [See p. 385.]

DISCUSSION.

Dr. Bailey: I am very glad indeed that Dr. Wilson has introduced this subject to-night. It is one that is particularly interesting to us at this time. The first article directing my attention to it is the article of Vaughan, which appeared in the Journal of the American Medical Association a short time before the meeting of the State Society at Shelbyville; and being so much delighted with it I wanted to introduce some features of that paper in the discussion of Dr. Marvin's paper on Pneumonia, but unfortunately for me he had read the article as well as myself, and my thunder was all gone, so to speak.

I want to express my hope and prophecy that there is something in this line that will compare favorably with the advances in surgery in the

last few years. I believe that we are at the very beginning of the use of remedial measures that will surprise us all in the course of five or ten years.

I want to say, moreover, that we are inclined to give surgery more than its fair share of what has been done in the last decade. While I do not wish to detract from the surgeon at all, he owes more to *materia medica* and the bacteriologist than to his operations. Without disinfectants, without germicides—and with these the surgeon has no more to do than the doctor—without these things surgery would have advanced at a very much slower pace.

I believe that in the treatment of the specific diseases the study will be to ascertain the physiological producer of each germ—its own special toxine that produces each special disease—and that we will be able to combat these, not possibly the germ itself, but to practically give an antidote to the product of the germ in many of these diseases where treatment now plays a very small part, except to modify the attack, and that many of these diseases in which we have heretofore done very little will be under control. Take diphtheria: a great deal has been done by the specialists working in that particular line, and I believe that the special toxine of that disease can be controlled by giving the antitoxine. That this can be done in croupous pneumonia we have the demonstration of the brothers Klemperer. We have the natural history of this disease as the result of the pneumotoxin. It is said that by the use of antipneumotoxin the crisis can be brought about at almost any time you desire. I believe that the disease will be controlled promptly by such measures. I have great hope also of the serum treatment, using the serum of animals immune to certain diseases both as a preventive and cure.

Dr. Marvin: I came to-night especially to hear what Dr. Wilson had to say. I only regret that he has not presented something more definite instead of generalizations only. I think all of you who have read Vaughan's paper will acknowledge it is a really scientific paper, by an able man, who is thoroughly up in his line of work and has written on this subject in a tentative manner. He went at it from a chemical as well as a physiological standpoint, and as far as he felt justified in making any statement it was that these substances stimulate leucocytosis, thus aiding in the destruction of pathogenic substances, adopting this as a compromise between phagocytic theory of Metschnikoff and the theory of serum immunity. The statement of Dr. Wilson in his paper bears

me out; that is, if you give a certain dose it increases leucocytosis, and if a larger dose is given it has no greater effect. In other words, nuclein is a "whip" to the cells, causing an increase of the peculiar kind which are destroying or fighting cells.

Dr. H. A. Cottell: I was much interested in the paper of Dr. Wilson and in the apt remarks of Dr. Bailey. It does look to me as if the dawn of scientific exactitude in medicine were at hand; we can see at least a faint streak or two in the clouds on the eastern horizon, but I do not believe the millennium will come through perfection of therapeutic measures. When the long-expected day breaks we shall find that prophylaxis through hygiene has "unbarred" for us "the gates of light."

Nuclein, as we see, is made from yeast. The chemist has been very fortunate in discovering a way to get this compound out of the cell. It resists the action of pepsin, it resists stomach digestion, and develops the very interesting point in physiology that the nuclei of cells, the most highly proteid of all proteid substances, are not digested in the stomach at all.

Another point which is very interesting to me is the fact that this substance has been recommended in tuberculosis. This serves to show how science comes along and explains to us what was years ago more or less empirical. I remember very distinctly, when I was a medical student, hearing Dr. T. S. Bell lecture on tuberculosis, and he recommended among other things in treatment *must*—fermenting wine—or fermenting beer; that is, yeast. Of course we take a great deal of yeast in our food, but it is destroyed by cooking. If you take *must* you get a great deal of this substance which Vaughan has isolated from *torula cerevisiæ*.

In this connection we might pay our compliments to Brown-Séquard. His discovery was really a discovery, and had in it a good basis for some of his claim. Of course testiculín was not an elixir of life; he never claimed it to be. But there is a substance in the testicular juice called spermine, which is also found in fish roe, mucous membranes, and other animal structures, and this substance has a very invigorating effect, and has been used by men who were becoming impotent to restore the function, with sometimes good results.

The point that I arose particularly to speak of was that a great many of these things which have been given scientific exactness by the chemists to-day are things that were used empirically by physicians of

earlier generations. John of Gladdiston instituted a treatment for smallpox which everybody considered absurd; that is, he filled the room with red hangings, and yet it is a positive fact, scientifically demonstrated to-day, that smallpox patients do much better when kept under the influence of red light than they do under ordinary white light. If nuclein proves itself to possess the power of checking or mitigating the proliferation of the tubercle bacillus, we have at this day a scientific explanation of what was a mere empirical measure a hundred years ago.

Dr. Wilson (closing the discussion): 'The most interesting feature of the whole question no doubt is the possibility of immunity against disease. If this principle can be once thoroughly established and worked out, it would be of inestimable value to the human race. Many of the diseases that now almost decimate the country may possibly at some time in the future be stamped out, as it were, in this way by a process of inoculation or vaccination, as was the case with smallpox. If we can succeed in rendering the system immune to the deleterious influence of bacilli, of course much will be accomplished. A family that inherits a tendency to tuberculosis may be taken and by a system of inoculations rendered immune.

As far as my own observation goes, it is that nuclein exerts a tonic and stimulating influence on the natural processes that are carried on in the system, and in all probability Vaughan was right in his statement that it stimulates organs which by their products serve to protect the system against disease.

THE FOUR YEARS' COURSE AT THE COLLEGE OF PHYSICIANS.—In the College of Physicians the new four years' course commences with the present season, but notwithstanding this fact the registration indicates that a larger class will enter this year than last year, when the highest number yet recorded was reached. In the session of 1893-4 the total enrollment of students numbered 766, a gain of 112 over the previous year. To the development of the four-year curriculum much attention has been devoted by the faculty. Each student will be examined each year upon the work of that year, and each student of the four-year will be required to elect from a list of elective courses either one course or more, as may be hereafter determined.—*Boston Medical and Surgical Journal*.

Reviews and Bibliography.

Chemistry: General, Medical, and Pharmaceutical, including the Chemistry of the U. S. Pharmacopeia. A Manual on the General Principles of the Science and their Application in Medicine and Pharmacy. By JOHN ATTFIELD, F. R. S., Ph. D., of the University of Tübingen, F. I. C., F. C. S., etc. Fourteenth edition. 795 pp. Price, \$3. Philadelphia: Lea Brothers & Co. 1894.

The mottoes adopted by the author of this work and appended to the title will furnish its justest review.

This from Lord Bacon: "But the greatest error of all is mistaking the ultimate end of knowledge, for some men covet knowledge out of a natural curiosity and inquisitive temper; some to entertain the mind with variety and delight; some for ornament and reputation; some for victory and contention; many for lucre and a livelihood, and but few for employing the divine gift of reason to the use and benefit of mankind."

And this from Lord Lytton: "I hold that the greatest friend to man is labor; that knowledge without toil, if possible, were worthless; that toil in the pursuit of knowledge is the best knowledge we can attain; and that the continuous effort for fame is better than fame itself. . . ."

With motives like these and abilities of the highest no more need be said of the character of Attfield's General and Pharmaceutical Chemistry. It is unsurpassed in its line.

D. T. S.

Text-Book of Hygiene. A Comprehensive Treatise on the Principles and Practice of Preventive Medicine from an American Standpoint. By GEORGE H. ROHE, M. D., Professor of Therapeutics, Hygiene, and Mental Diseases in the College of Physicians and Surgeons, Baltimore, etc. Third edition, thoroughly revised and largely rewritten, with many illustrations and valuable tables. 553 pp. Price, cloth, \$3. Philadelphia: The F. A. Davis Co. 1894.

The first edition of this work has already been noticed in favorable terms, and the present edition commends itself still more to favorable consideration. Every chapter has been subjected to a careful revision, and the advances in sanitary science and practice have been incorporated. Recent legislation in the United States and Canada having almost entirely revolutionized quarantine practice, the author has induced Surgeon-General Walter Wyman and Dr. H. D. Geddings, of the Marine Hospital Service, to entirely rewrite the chapter on quarantine.

A set of analytical questions has been appended to each chapter with a view of making the book still more useful to teachers and students, and a separate section has been added on methods of examination of air, water, and food. The print is large and attractive, and the work is more than ever bound to receive the approval of students of preventive medicine.

D. T. S.

A Manual of Human Physiology, prepared with Special Reference to Students of Medicine. By JOSEPH H. RAYMOND, A. M., M. D., Professor of Physiology and Hygiene in the Long Island College Hospital and Director of Physiology in the Hoagland Laboratory. With one hundred and two illustrations in the text and four full-page colored plates. 382 pp. Price, \$1.25. (Saunders's New Aid Series.) Philadelphia: W. B. Saunders. 1894.

The author having, after long experience in teaching, come to the very reasonable conclusion that in the short time allotted to the study of physiology in medical schools students can assimilate only the main facts and principles of this branch of medicine, and that even if there were time to investigate the more recondite and abstruse parts of the subject, such an investigation would be profitless during this formative period, has endeavored here to put into concrete and available form all the leading facts and principles of the science. He is to be thanked not only for the production of a clearly-arranged and well-considered manual, but also for putting in a strong word in favor of limiting the field over which the student is expected to travel. The man who contributes most to the intelligent abridgment of books in this age of endless book-making is entitled to the special gratitude of students as well as teachers. Better to learn a little well than a great deal imperfectly.

D. T. S.

The Principles of Bacteriology. A Practical Manual for Students and Physicians. By A. C. ABBOTT, M. D., First Assistant, Laboratory of Hygiene, University of Pennsylvania. Second edition, enlarged and thoroughly revised, with ninety-four illustrations, of which seventeen are colored. 471 pp. Philadelphia: Lea Brothers & Co. 1894.

This work may be taken as a fair exhibit of the principles of bacteriology as taught in one of the foremost institutions of the land, and, having already in the first edition met with a favorable reception, will be received with increased regard in this revised edition. A sketch of the evolution of our knowledge upon immunity and infection has been introduced, and an outline of apparatus necessary for a beginner's laboratory has been appended. In this history of the origin of bacteriology may be found a crumb of comfort for those who think they have made scientific discoveries of different kinds, but which are yet suffered by the world at large to lie in neglect. It appears that a practically full conception of the bearing of bacteriology has been more than once advanced, the first over two centuries ago, and yet each period until the present the whole matter was subsequently allowed to pass almost out of sight.

D. T. S.

A Manual of Hygiene. By MARY TAYLOR BISSELL, M. D., Professor of Hygiene in the Woman's Medical College of the New York Infirmary for Women and Children. 338 pp. New York: The Baker & Taylor Co. 1894.

An eminently practical work is here presented, one that applies to the every-day life of the people, and one that could not fail to be of advantage in every intelligent household. We might not agree with the author as to the use of sputa cups in the prevention of consumption, doubting much if

they have ever saved a single life, and expecting them to save but few. The mercy of consumption lies in the ability of the patient to doubt the diagnosis and to hope to get well, and we do not think he is placed under obligation to carry with him a constant reminder that he suffers from a contagious disease that these over-zealous hygienists would also have regarded as loathsome. On the whole, however, only good words for Dr. Bissell and her book.

D. T. S.

Syllabus of Lectures on Human Embryology. An Introduction to the Study of Obstetrics and Gynecology for Medical Students and Practitioners, with a Glossary of Embryological Terms. By WALTER PORTER MANTON, M. D., Professor of Clinical Gynecology and Lecturer on Obstetrics in the Detroit College of Medicine, etc. Illustrated with numerous outline drawings. 125 pp. Philadelphia: The F. A. Davis Co., publishers. 1894.

The object of this syllabus is to furnish to students and practitioners an outline of the principal facts in human embryology. It is arranged in such way that printed headings may serve as a guide during the elaboration of the subject by the teacher. Every second leaf has been left blank, and sufficient space has been left around each outline cut so that the student may write down for himself the names of the parts, and thus the book may serve both as a syllabus and a note-book. Occasionally a German term has been used in the text, such as "anlage" and "bauchstiel," which seems hardly justified. If the Latin or the English language does not furnish a satisfactory term, the author would be excused for attempting to construct a satisfactory term to be added to the language. On the whole it supplies a very full and satisfactory syllabus.

D. T. S.

Practical Uroanalysis and Urinary Diagnosis. A Manual for the Use of Physicians, Surgeons, and Students. By CHARLES W. PURDY, M. D. (Queen's University), Professor of Urology and Urinary Diagnosis at the Chicago Post-Graduate School, etc. With numerous illustrations, including photo-engravings and colored plates. 357 pp. Philadelphia: The F. A. Davis Co., publishers. 1894.

The author's aim in this work is to combine in a moderate-sized volume the essential features of our knowledge of the urine and urinary diagnosis in a systematical, practical, and concise form. His already great and solid reputation in this line gives ample guarantee that the task would be well performed. The work is clearly written, in choice language, and easily takes rank with the best works on the subject to which it relates. After a thorough discussion of the urine in its physiological and pathological conditions a division of the work is devoted to its pathological relations, and especially to its bearing on diagnosis.

D. T. S.

The Nurse's Dictionary of Medical Terms and Nursing Treatment. Compiled for the Use of Nurses, etc., by J. CONNOR MORTEN. 139 pp. 16mo. Cloth, price \$1. Second edition. Philadelphia: W. B. Saunders. 1894.

The call for a second edition of this neat little work shows that it has found its place in the hospital and infirmary. It is seldom that we find so much information in so small a space.

Abstracts and Selections.

HUMORS OF HOMEOPATHY.—Richard Bentley, the famous scholar, who had as much experience of controversy as any man that ever lived, used to say that no man was ever written down except by himself. We commend this maxim to the attention of the disciples of Hahnemann. These guileless persons often complain that they are evil-entreated by the professors of scientific medicine, their doctrines being misrepresented and their practice unjustly ridiculed. But are not their worst enemies those of their own household? Take the following samples of their teaching as set forth in all seriousness in their own organ. The American Homeopathist gravely assures all whom it may concern that if a patient sleeps with his knees apart *chamomilla* is indicated; if with his legs stretched out at full length, *pulsatilla*; if with one leg drawn up and the other stretched out, *stannum*. If the patient has his head always turned to one side, *cina* is indicated; if he bends his head forward, *staphysagria*; if backward, *hyoscyamus*. So much for the head and the legs. The hands and arms are the object of still more mysterious refinements. If the patient lie with his hands on his abdomen, *pulsatilla* is indicated; the same drug is to be used when a woman sleeps with her hands over her head, but when a man does so, he requires *nux*. There is something suspicious in this difference in which we fear the "New Woman" will see a fresh instance of the denial of equal privileges with the tyrant man. We confess ourselves utterly unable to appreciate the clinical significance of the phenomena that have been enumerated; it would almost seem as if the prophets of the pilular philosophy believed man to be under a curse like that of Ernulfus, and that he is banned in all his limbs, in sleeping, in sitting, in lying, etc. There is one position of the hands which, strangely enough, is not provided for; the resources of homeopathic therapeutics seem to fail before the contingency of a patient who, like the vulgar little boy of the Ingoldsby Legends, should "put his thumb unto his nose and spread his fingers out." This omission is the more remarkable since the homeopathic practitioner would seem to be prepared for even less decorous manifestations on the part of his patients. Thus we are told that if "patient 'cusses' you, spits in your face, and pulls your whiskers," you are to soothe her excited feelings with *chamomilla*. There is a refreshing candor about the following: "If a patient gets suddenly better, it is a bad sign"—for the doctor, we presume.

The North American Journal of Homeopathy published recently an article on "Some Peculiar Sweats," in which also the subtleties of homeopathic therapeutics are strikingly displayed. Thus we are told that if only the upper half of the body sweats *nux vomica* or opium is the thing; if the

lower, crocus or cyclamen; if the back, ananita or phosphorus; if the right side, aurum or sodium; if the left, fluoric acid and jaborandi; if the face alone, ignatia. Lastly, if the patient sweats "in spots" the sovran'st thing for this distressing condition is tellurium. For sweats in the morning, angostura (to the profane mind more suggestive of dinner time) is prescribed; for sweats while eating you have a specific in "oleum animalis;" we can only hope that this drug agrees with those to whom it is administered better than the component elements do with each other. It is interesting to learn that if the sweat smells like horse's urine its natural fragrance may be restored by nitric acid.

Then in the Southern Journal of Homeopathy we find some curious information about "Peculiar Coughs." Thus, when the cough comes on at the inconvenient hour of 6 A. M., you must put your trust in cedron; if it is worse when the patient lies on his belly give him baryta; if it is worse when lying on the left side, mercurius. We are unkindly left in the dark as to what is to be done if the cough is worse when the patient lies on his right side or on his back. When the cough is aggravated by music creosote is indicated. We are thankful for this suggestion, but it is disappointing that no information is vouchsafed as to how we are to deal with those other common exciting causes of cough—a dull sermon or a drowsy lecture. We could add indefinitely to this *florilegium*, but this would hardly lead to edification. It would be gross flattery to call this stuff heresy or even superstition; it is sheer unadulterated nonsense. It is the homeopaths themselves who write themselves down—what poor Dogberry was so anxious to be written down. Certainly the most malicious "allopath" could not invent any thing that tends to laughter more than these simple gentlemen invent on themselves.—*British Medical Journal*.

THE BOILING POINT OF MILK.—Referring to the temperature at which typhoid bacilli are killed, a correspondent assumes that milk boils at 180° to 190°. This is a mistake which needs correction. Milk boils at a temperature higher than that of water, and it is well known that boiling milk inflicts a much more serious scald than boiling water. The point at which milk boils will vary half a degree or more according to the amount of its saline and other non-aqueous constituents, but I find that a fair sample of milk, taken from my own kitchen, boils at 213.5° when tested with a standard chemical thermometer. I have always advised that milk boiled for one minute is made safe by the killing of any infective germs which it might have contained.

The butter contained in the milk does not seem to raise its boiling point, but it is well known that butter and other fats and fixed oils boil at a very much higher temperature, and that boiling fixed oils destroy the skin as effectually as melted lead. In the manufacture of tin plate, that is, sheet iron plated with tin, the tin is kept melted under melted tallow and the clean sheet iron is tinned by being passed through this bath of molten tin.

Fixed oils may be heated to about 500° F. without undergoing material change, but at about 600° they begin to boil, owing to the evolution of gases, which are set free as a process of destructive distillation.

It is generally held that the typhoid infection of milk is due to contaminated water used for washing the milk vessels or for augmenting the bulk of the milk by fraudulent additions. My own opinion is that an escape of fecal matter from the cow while being milked often falls into the milk-pail, and that this is generally the real cause of typhoid infection in milk. I have actually seen this to occur when inspecting dairies and examining suspected cows, and I am perfectly sure that it often takes place. The polluted-water theory seems to me to be far fetched and inadequate.—*James Edmunds, M. D., in British Medical Journal.*

THE BIOLOGY OF THE AMEBA: DYSENTERY.—Professor Celli (Rome) reported some of the results of an investigation which he had undertaken into the life-history of ameba. The best method for study was in the hanging-drop culture, which rendered it possible to follow the development of the organisms. By this means it had been found easy to obtain pure cultures of six species, that is to say, as far as regarded the ameba themselves, for it had not been possible to exclude entirely bacteria. Ameba resisted the action of alkalies, and by using very alkaline media it was possible to obtain cultivations almost free from bacteria. A classification of the ameba could be founded upon a study of their ameboid, reproductive, resting, and cystic stages. The first and the last stages were of the greatest importance in this respect. Reproduction took place always by scission, never by sporulation. Since sporulation was constant in the spasmodium malariae, it might be concluded that this organism was not an ameba but a sporozoön. The resting stage presented characters which were only transitory, but it was important to be acquainted with them, since in the stools they might be met with in this stage. The time occupied by the cycle of development was constant under similar conditions of culture material and temperature, and afforded a means of distinguishing between the ameba. The species so far cultivated were (1) ameba lobosa (var. guttula, oblonga, ondulans, coli); (2) A. spinosa, (3) A. diaphana, (4) A. vermicularis, (5) A. reticularis, (6) A. arborescens. Several species might be found in the same intestine. The commonest was A. spinosa, which had been found under very different conditions in healthy persons as well as in patients suffering from dysentery and intestinal catarrh. In 34 cases of dysentery which he had carefully examined Professor Celli had found A. diaphana 5 times, A. coli 4 times, and A. spinosa, A. vermicularis, and A. reticularis once. In the other cases no ameba were found. These facts showed that these protozoa must be of very secondary importance in the etiology of dysentery. On the other hand, bacteriological investigation had shown that, in the stools of dysenteric diarrhea, the bacterium coli was constantly present, often in pure culture, at other times associated with the pseudo-typhoid bacillus. This

observation did not prove that the bacterium coli was the cause of dysentery. It was indeed far from being proved that this microbe could acquire a virulence so great and so specific as to produce a disease as typical in its clinical and epidemiological characters as dysentery.—*British Med. Journal*.

THE ETIOLOGY OF CANCER.—At the eighth International Congress of Hygiene and Demography, held in Buda-Pesth, September, 1894, discussion on this subject was introduced by Dr. S. Duplay (Paris), who, after reviewing recent microscopical and experimental work, expressed the opinion that the question of the etiology of cancer still remained quite unsolved. In his opinion the theory of the existence of sporozoa in cancer, which in some quarters there was a tendency to accept too readily, became more and more doubtful as research was pushed further. The conflict of opinion among different observers was quite irreconcilable. As Dr. Ruffer had justly observed at the International Congress in Rome, it was necessary, since the usual histological methods of fixing and staining had not given satisfactory results, to resort to new methods. In particular, special attention should be given to the examination of fresh tissues. M. Duplay considered that recent experience pointed strongly to the view that cancer in an individual of one species could not be communicated by inoculation to an individual of another species, and that within the same species cancer could be transmitted from one individual to another only under conditions which must be very exceptional, and were not yet understood, though hereditary predisposition, perhaps, played a certain part.

Dr. Török (Buda-Pesth) accepted the conclusions of M. Duplay. His own observations had satisfied him that the bodies regarded as psorosperms in cancer were nuclei, nucleoli, epithelial, or migratory cells, red blood cells, or products of degeneration.

Mr. Arloing (Lyons) had been led by his own experiments to the same opinion as M. Duplay with regard to the non-transmissibility of cancer from an individual of one species to an individual of another species. They led him equally to confirm the opinion that under certain conditions cancer might be transmitted from one individual to another individual of the same species. He had seen this occur in the dog.—*British Medical Journal*.

THE PRACTICE OF MEDICINE BY WOMEN IN 1572.—In an address before the Yorkshire Branch of the British Medical Association this summer, Mr. W. H. Jalland stated that York seems to have been ahead of most places in countenancing the practice of medicine by women. In closing his address (*Quarterly Medical Journal*) he says: "I find on reference to the Corporation Minutes dated 1572, Elizabeth XIV, the following entry: 'And for as much as it appeareth that Isabel Warrick hath skill in the science of surgery and hath done good therein, it is therefore agreed by these presents that she upon her good behavior shall use the same science within this City without let of any of the surgeons of the same.'"—*Boston Medical and Surgical Journal*.

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THE DANGERS OF LABORATORY INFECTION.

When we take into account the fact that in almost every city of the civilized world, large enough to support a medical school, there are students, teachers, and original workers engaged in the culture and study of the microbes of infectious and contagious diseases, it is a wonder that the bacteriological laboratory does not oftener furnish cases of accidental inoculation with fatal results. Of course due precautions are taken, and no well-regulated laboratory is likely ever to become the disseminator of cholera, diphtheria, typhoid fever, or other endemic or epidemic disease; but the investigators themselves, in the handling of the pathological specimens, cultures, and mounts which, containing inoculable microbes, engage their attention, are always in danger if they fail to exercise that careful diligence which is the price of safety.

When operators wound themselves in the handling of inoculable specimens it is their custom to wash and cauterize the wound, and, this failing, to excise the first local manifestation of the disease. But it is probable that the bacteria of not a few diseases may find entrance into the body by inhalation, and it would seem that most operators utterly ignore this source of danger.

There is no doubt that the microbe of tubercle generally infects its victims through the medium of the inspired air; and, this being true,

students whose family histories show them to be susceptible should not be allowed to work with tubercle bacilli unless guarded against infection with most scrupulous care.

The following instance of the contraction of cholera by a practical investigator should carry the force of a solemn warning to all workers in pathogenic germs. It might also suggest that possibly the trick of swallowing cholera pure cultures, as practiced by some of Pettenkofer's followers, is not to be recommended as a harmless amusement for laboratory students. The Boston Medical and Surgical Journal quotes from the *Deutsche Med. Wochenschrift*, No. 41, 1894, the following very interesting article :

A FATAL CASE OF LABORATORY CHOLERA.—On the 21st of September of this year, Dr. Karl Emil Oergel died in Hamburg of Asiatic cholera, contracted during laboratory investigation at the Hygienic Institute. The circumstances of his illness were such that careful observation of symptoms were possible throughout the course of the disease. Dr. Reincke has published an account of the case which is interesting from clinical as well as personal reasons.

The exact manner of infection was not discovered, but it was beyond doubt some oversight in his laboratory work, as all other possible means were eliminated, and several breaks in the chain of precaution were discovered.

On the 14th of September Dr. Oergel was at his work, and made no complaint, nor was his appearance different from usual, although it was subsequently learned that he had on that day diarrhea and some lassitude. In the evening the diarrhea became much worse, and was accompanied by vomiting, cramps, and great restlessness, and the patient fell into a state of collapse, with small, slightly quickened pulse, and presented the appearance of a much-asphyxiated case of cholera. He was moved early on the morning of the 15th to the Eppendorfer Hospital, where he rallied after many injections of camphor and ether. His condition was recorded as follows :

"Typical picture of severe cholera. Patient is hardly to be recognized. The eyes deeply sunken and half covered by the lids. Moderate cyanosis. Hands and feet cold. Folds in the skin remain as made. Sensorium entirely free. Temperature 35.4° C. Pulse 100. Breathing irregular. A sense of heavy oppression. As far as the condition permitted examination, no evidence of change in internal organs was detected. There were many rice-water stools within short intervals, and all drinks and medicines were quickly vomited. Marked singultus. Restless tossing about in bed. Cramps in thighs, forearms, and feet. Treatment ordered: Camphor injections and warm baths."

During the day the temperature arose to 36.9° C., and the pulse became very small, and was obtainable only at intervals. There was considerable vomiting and almost incessant singultus. By evening the cramps increased in severity and frequency, and were the cause of the chief complaint of the patient. During the day an injection of three and one half liters of a warm one-per-cent solution of tannin was given, and retained about twenty minutes. At night he was given an infusion of 900 c. cm. of 0.66 per-cent solution of salt at a temperature of 40° C. After this the subjective condition was slightly improved and the cramps lessened. The pulse was obtainable throughout the night.

During the next five days the condition remained about the same, there being some vomiting, offensive stools, and a gradually approaching state of coma. There was a constant tendency to collapse, and death occurred in deep coma on the afternoon of the 21st of September.

Daily bacteriological examination of the stools showed nearly pure culture of the cholera vibrio, with occasional admixtures of a few bacteria coli. The autopsy showed a fibrinous pneumonia of both lower lobes, especially of the right; old aortic endocarditis; "cholera kidney," second stage; cicatrices of the left kidney, a recently swollen liver; proctitis, and diphtheritic colitis.

OUR subscribers have responded very liberally to our requests sent last month for subscription dues. However, some have overlooked the matter. We trust these will find it convenient to remit during December.

THE CESAREAN OPERATION AFTER VERSION AND DECAPITATION.—In the *Nouvelles archives d'obstétrique et de gynécologie* for October we find an abstract of an article published in the *Ugeskrift for Lager*, of Copenhagen. It describes a case of labor in which the patient was a primipara, forty years old. The head presented, and was movable and situated high. The umbilical cord and one hand, together with a forearm, had prolapsed. The pelvis was contracted. Version and extraction were performed with the patient under the influence of chloroform. The body was disengaged, but not the head. As the neck was felt to be torn, the separation of the head from the trunk was completed. Then the Cesarean operation was performed for the extraction of the head, which was now tightly engaged at the superior strait, whence it was dislodged with two fingers introduced through the uterine orifice. The woman got well, but only after a very long time, during which she had fever and peritonitis.—*New York Medical Journal*.

Notes and Queries.

A VICTIM OF DELUSION.

Placid I am, content, serene,
 I take my slab of gypsum bread,
 And chunks of oleomargarine
 Upon its tasteless sides I spread.

The egg I eat was never laid
 By any cackling, feathered hen ;
 But from the Lord knows what 't is made
 In Newark by unfeathered men.

I wash my simple breakfast down
 With fragrant chiccory so cheap ;
 Or with the best black tea in town—
 Dried willow leaves—I calmly sleep.

But if from man's vile arts I flee
 And drink pure water from the pump,
 I gulp down infusoriæ,
 And hideous rotatoriæ,
 And wriggling polygastricæ,
 And slimy diatomacææ,
 And hard-shelled orphryocercinæ,
 And doubled-barreled kolpodæ,
 Non-loricated ambrœilæ,
 And various animalculæ,
 Of middle, high, and low degree ;
 For nature just beats all creation
 In multiplied adulteration.

—*Popular Science News.*

TYPHOID FEVER FOLLOWING PARTURITION.—The October number of the *International Medical Magazine* contains an interesting clinical lecture, by Dr. E. E. Montgomery, on typhoid fever following parturition as contrasted with sepsis. He relates the case of a patient who suffered from fever for some time after her confinement, and yet in whom no physical signs of local mischief were discoverable. The possibility that the temperature might have been due to malaria, tuberculosis, or typhoid fever is carefully discussed, and Dr. Montgomery concludes, rather, as it seems to us, on account of the absence of some positive signs of sepsis than from the presence of any positive indications of typhoid fever, that the patient was really suffering from typhoid fever occurring during the puerperium. It is of course quite true that the occurrence of parturition does not necessarily prevent the individual from suffering from other conditions ; at the

same time it must be remembered that the circumstances of parturition afford very extensive opportunities for the entry of septic matter, and that both the symptoms and physical signs may present very great differences according to the intensity of the poison and the channel through which it is absorbed, or rather, perhaps, according to the tissues in which more particularly its activity is manifested. Of course in the majority of cases there are well-marked local signs, as, for example, in typical cases of pelvic cellulitis or peritonitis following labor.

But there is another class of cases where, although undoubtedly the illness is due to a septic process in connection with parturition, there are no obvious evidences of it to be discovered in the pelvis by physical examination, and no abnormality is noticeable in the discharge from the uterus. In such cases the mischief is due to a localized phlebitis, with the formation of a clot in one of the uterine veins. This condition is attended by a continued fever, the temperature at times running very high; but there may be a complete absence of any pain or any other symptoms, except those necessarily associated with fever. Should the phlebitis extend to one of the trunk veins the nature of the case becomes evident from the occurrence of edema in the corresponding limb; but, should it not be so, this pathognomonic indication of the morbid condition in progress may be wanting. The edema may be very late in occurring; it may be delayed till three or four weeks after the delivery, and during the whole of this time there may have been a more or less continuous high temperature; and, again, the edema may be very slight, and therefore easily escape notice unless the two limbs are carefully compared. Every gynecologist meets with patients who have been supposed to have had typhoid fever after confinement, and where the physical evidence that the mischief has been due to localized inflammation definitely connected with the process of parturition is quite clear. We may add that the same is true of small collections of pus in the pelvis, as, for instance, in the case of small suppurating ovarian cysts, or in the case of small ovarian cysts that have not suppurated, round which an acute peritonitis has occurred. Many such patients come with a history of having had typhoid fever, when there can be no reasonable doubt that the fever from which they suffered arose in connection with the local disease.—*Lancet*.

TREATMENT OF COLLAPSE FROM LOSS OF BLOOD.—In a paper printed in the *Texas Medical Journal* of October Dr. A. S. Fuller, of Houston, cites two cases of collapse, due to *post-partum* hemorrhage, treated by the injection of a salt solution into the peritoneal cavity. The first case was a multipara, about thirty years of age, the hemorrhage coming on a few moments after expulsion of the placenta, and collapse occurred before the flow could be checked. Stimulants, hypodermically, position, and heat failing to have any effect, one and one half pints of a hot two-per-cent solution of sodium chloride was injected into the peritoneal cavity, and in about three hours the patient was sufficiently recovered to allow the doctor to leave.

In the second case the hemorrhage could only be arrested by swabbing with the perchloride of iron. Two pints of the same strength solution as used in the previous case were injected and the patient rallied in about six hours. Both cases made a good recovery.

This proceeding was suggested to the author by the effect of rectal saline injections. He believes the intra-peritoneal injections to be quite as effectual as transfusion or intra-venous saline injections over both of which they possess the following advantages, simplicity and rapidity of execution, the avoidance of the entrance of air into the circulation, and of special additions to the obstetric or emergency bag.

A trocar and canula and an ordinary fountain syringe are the only instruments needed. If proper asepsis be practiced there is practically little danger as to peritonitis. The danger of puncturing the gut is easily avoided, and even should this happen with a medium or small-sized instrument the effects are not serious.

In one class of cases of collapse due to hemorrhage this procedure should not be used, cases of hemorrhage from typhoid ulcers. In these cases the abdomen is so flattened and retracted that it is difficult not to puncture the intestines, and their irritability is so great that they will not retain the solution long enough to allow of absorption, and also the danger of bringing on another hemorrhage.

THE USE AND ABUSE OF TOOTHPICKS.—The exciting causes of caries of the teeth are invariably external, and among these decomposition of food or of mucus between the teeth holds a prominent place. It follows that removal of such matter must be beneficial. One of the means of accomplishing this is the toothpick, which, judiciously used, is of undoubted value. Food lodges between the teeth from a variety of causes: the extraction of a tooth may lead to those contiguous falling apart and so leaving spaces; improperly filled teeth, such as those left with rough edges and not sufficiently "contoured," that is, built up to the original configuration of the lost part, will form food traps; irregular position of the teeth or recession of the gums, all these will act in the same way. Attention to the dental toilet before company is certainly inelegant, but it is not necessary here to approach the subject except from a medical point of view. Of the materials used as toothpicks the best is the quill with the sharp point removed, but with this, as with all other forms, care must be observed. By indiscriminate application the gums may be so irritated and injured as to cause recession and thus increase the existing trouble, or inflammation of the tooth membrane may be caused, a most annoying condition, and one in which the still more vigorous use of the toothpick gives temporary relief only in reality to add fuel to the fire. Metal toothpicks are good because blunt-pointed, but are too thick to pass between teeth at all close together. Wood need only be mentioned to be condemned, for it is a by no means uncommon occurrence for small fibers to become detached and jammed

between the socket and tooth, leading to chronic periostitis and even loss of the tooth if the condition is not recognized. An excellent substitute for the toothpick, one having few objections, and one which will save many a visit to the dental surgeon, is antiseptic, waxed, dental floss silk, which, passed between the teeth night and morning, will invariably reveal accumulations which have escaped the tooth brush, however carefully employed. *Lancet*.

ANTITOXIN TREATMENT OF TETANUS.—There are two cases of traumatic tetanus recorded in the British Medical Journal of September 15th, in which recovery took place under antitoxin injections. In Mr. Dean's case the injury was received on June 28th, tetanus developed on July 24th (twenty-six days after), and the patient was well on September 4th. In Mr. Evans' case the injury occurred on June 8th, tetanus set in on July 16th (thirty-eight days after), and the patient was well on August 11th.

The clinical history of such cases up to now is, that where tetanus supervenes soon after the injury no treatment is of any avail, and that where it comes on after a long interval careful nursing and perfect quiet are sufficient to carry the case to a favorable termination. I maintain that such cases as are here recorded are of little value; what we want is a record of cases of acute tetanus coming on within a few days of injury, treated by antitoxin, and ending in recovery.—*Mr. A. Sheen in British Medical Journal*.

BLOOD SPOTS.—An American authority states that he has discovered a method for detecting blood stains that the microscope had failed to reveal. When the smallest drop of blood is mixed with fifteen grams of distilled water, and one or two drops of tincture of guaiacum added, a cloudy precipitate of resin is yielded, and the solution becomes slightly colored. When there is further added to it a drop of ethereal solution of peroxide of hydrogen, a blue color appears, which becomes deeper and deeper on exposure to the air.—*Chemist and Druggist*.

HOW TO COMPUTE THE DOSE FOR CHILDREN.—Dr. P. Bolognini contends that the formulæ in general use for computing the doses of remedies suitable for different ages are unsatisfactory. He has computed the average weight of children for each month of the first year, and for each year thereafter up to the eighteenth, and upon this basis has formulated the following rules:

1. From birth to the end of the first year: let d stand for dose and m for the age of the infant in months. Then the fraction of the adult dose will be represented by $d = \frac{1}{20-m}$.

2. For a child from two to eighteen years of age the formula is $d = \frac{2+a}{25}$; d = dose, and a = age of the child in years.—*Archives of Pediatrics*.

Special Notices.

GONORRHEA IN ANY STAGE.—Try internally (*Med. World*):

R	Potassi bromidi,	4 drams;
	Sodii bicarbonatis,	1 ounce;
	Tinct. cannabis indicæ,	4 drams;
	Spts. æth. nitrosi,	3 ounces;
	Aquæ, ad.	6 ounces.

M. ft. sol. Sig: One dram three times a day.

And as an injection:

R	S. H. Kennedy's Ext. Pinus Canadensis (White),	2 ounces;
	Tinct. opii,	1½ ounces;
	Glycerini,	1½ ounces;
	Aquæ rosæ, ad.	6 ounces.

M. Sig: Inject every three hours.

MCARTHUR HYPHOPHOSPHITE CO.—Dear Sirs: For thirty years I have used SYRUP of the HYPHOPHOSPHITES and Churchill's Formula since its introduction to the American market through Dr. McArthur. It is certainly one of the best, if not the BEST, I have known in the practice of medicine. It is remarkable for its combination of all the ingredients which are so well blended together in it, and gives satisfaction to the patient and success to the practitioner. Your sincere friend,

HENRY E. DWIGHT, Philadelphia, June 16, 1894.

THERE is no doubt about the value of CACTINA PILLETS. In heart troubles, especially those of neuralgic character, weak heart, exhausted energies, some neurologies and nervous prostration, CACTINA PILLETS will prove curative.

JOSEPH C. ELLIS, A. M., M. D., Frankford, Philadelphia, Pa.

DR. GORDILLON, St. Amand, France, says: I have tried Aletris Cordial in a case of dysmenorrhea. The result I obtained from the use of the preparation was excellent—far better than I had obtained in the same patient by prescribing the usual remedies employed in such cases.

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THE AMERICAN PRACTITIONER AND NEWS

"*NEC TENUI PENNÂ.*"

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—*RUSKIN.*

Original Articles.

TARTAR EMETIC IN THE TREATMENT OF PNEUMONITIS.*

BY C. T. GRINSTEAD, M. D.

It will not be claimed in the following paper that tartar emetic is a specific remedy for pneumonitis, but that in properly selected cases, viz., acute lobar pneumonitis of the sthenic type, it is a prompt and efficient remedy. In this class of cases, when properly used, it has in my hands given unvarying favorable results. It is a well-known fact that for the last thirty years all writers on this subject have stated with more or less positiveness that pneumonitis is a self-limited disease and uninfluenced by remedies except as they may be indicated to meet certain symptoms and complications during its course. Prior to this time, and during the first half of the present century, the treatment known as the antiphlogistic method was practiced in this and other diseases attended with fever and inflammation, the lancet being the sheet-anchor; not in the sense that it was the last resort, but blood-letting was practiced from the onset until convalescence or death terminated the ministrations of the doctor. Succeeding this method of treating pneumonitis and coincident with the statements of the leading pathologists and clinicians of the day, that pneumonitis was a self-limited disease, came the expectant and stimulant method, which consisted in giving quinine, alcohol, and carbonate of ammonia from the beginning.

It occurred to me years ago that the pendulum had swung too far in

* Read before the Bowling Green and Warren County Medical Society, November 2, 1894.

the direction of this so-called conservatism. It was not to me clearly the proper thing to do, to stand idly at the bedside of a previously healthy, robust adult with a temperature of 104° or 105° , a full, bounding pulse, and the other characteristic and alarming symptoms due to acute pneumonia, and I therefore resolved to treat my next case of this kind with tartar emetic, having seen previously in the works of some of the older writers statements similar to the following quotation from Stillé's *Therapeutics and Materia Medica*, edition 1864, vol. 2, pages 352 and 353. He says:

"But the most conclusive facts which bear upon this subject consist of a group of cases, forty-four in number, which M. Grisolle treated by means of tartar emetic alone. They were all of a given type. The treatment was commenced between the second and ninth day of the disease. The initial daily dose of the medicine was from six to eight grains, dissolved in five ounces of a simple infusion and administered in portions every hour. The greater number of the patients did not take more than twenty grains during the course of the attack; some of them, however, took as much as sixty grains. All, without exception, experienced certain primary effects, namely, vomiting and purging; but the latter was the more frequent of the two. Out of sixty-six cases in which the medicine was continued for several days, tolerance was manifested in seventeen after the third or fourth day; and among one hundred and fifty-four patients who took the medicine in the manner described, twelve only tolerated it from the first.

"Its influence upon the individual symptoms may thus be expressed: The first sign of its beneficial operation is the diminution or cessation of the *stitch* in the side. Within twenty-four hours after the first dose the pulse falls considerably and becomes softer, and at the same time the heat of skin abates. The fall of the pulse in the periods mentioned varies between ten and forty beats a minute. The frequency of the respiration also declines, and most so when it has previously been most hurried. In seventeen of thirty-three cases the sputa, which were highly characteristic when the first doses of the medicine were taken, lost the greater part of their pneumonic character within twenty-four hours, and in one third of the cases had assumed the appearance of catarrhal sputa. In nearly all, the physical signs furnished by auscultation and percussion begin to diminish after the first day's use of the medicine. The other symptoms, such as headache, thirst, general *malaise*, etc., declined or ceased for the same period. As M. Trousseau

has remarked, one effect of this treatment is that there is hardly any convalescence. Did he mean that it was aborted?"

Three days are sometimes sufficient to transport a patient from the very brink of the grave into such a state of well-being that, were it not for the auscultatory signs, the fact that he had labored under a dangerous attack of pneumonia would be incredible. M. Grisolle confirms this statement, and adds that he has been surprised how rapidly the strength returns in such cases. The fact that it had not been consumed by depletion or prolonged sickness will probably suffice to explain this striking result. The appetite, too, is speedily restored, and so completely that sometimes in forty-eight or even twenty-four hours after taking the first potion the patients have urgently asked for food. As will be inferred from these facts, the average duration of the attack is remarkably short; in the series of cases referred to it did not exceed ten days, and out of forty-four patients twenty were able to resume laborious occupations on the twentieth day from the commencement of the attack. M. Trousseau lost two out of fifty-eight cases which he treated almost exclusively by antimonial preparations.

A number of other authorities are quoted by this author, the majority of whom, however, used the lancet also, their percentage of mortality being greater. My first opportunity to use this remedy was not long delayed. I was called on the morning of January 13, 1875, to see John O., a young adult farmer, about twenty years old, of robust physique, weighing one hundred and seventy-five pounds. I learned that he had been sick since early the previous night, and that his illness began with a severe chill. He had a full, bounding, rapid pulse, high temperature, dry skin, frequent, distressing cough, with brick-dust sputa, stitch in side, and the characteristic pneumonic blush of the cheek. A physical examination confirmed the diagnosis of acute lobar pneumonitis of the right side. He was given one-tenth-grain tartar emetic every half hour until nausea was produced, and directed to have the medicine in sufficient quantity and frequency to maintain the nausea until my return next day. At noon next day his temperature was normal, cough very much better, no blood in sputa, respiration almost normal, no stitch in side, skin moist, and pulse very much improved. He expressed himself as feeling very much better. On inquiry it was learned that vomiting began during the afternoon of the previous day, followed shortly by copious discharges from the bowels, the matter vomited and alvine discharges both containing bilious matter in consid-

erable quantity. The young man was convalescent from this time, and returned to his farm work in a few days.

Ten days afterward, on January 23d, I was summoned early in the forenoon to go in haste to see the mother of this young man. On my arrival the old gentleman met me at the yard gate with anxiety and alarm depicted on his countenance, urging me to get to his wife quickly, that he was afraid he had killed her. He explained hurriedly, as we went, that she was taken the early part of the night previous with symptoms like his son had, and as there was some of the medicine left, and as it had relieved his son so promptly, he decided to give it during the night and send for me the next morning. On entering the room I was forced to share the old gentleman's alarm. The patient, a woman sixty-four years old, lay on the bed unconscious, almost pulseless, with cold perspiration, and seemingly almost dead. Stimulants and warm applications, however, soon brought her around, when it was ascertained that she had been the subject of a well-marked attack of pneumonitis, and had been dosed with tartar emetic according to directions given for the young man. Her convalescence dated from this time, and she was well in a few days. Had I seen this patient at the beginning of her illness, candor compels me to confess that I should have hesitated to give the remedy on account of her age and my limited experience with it, and also because it was not, and for that matter is not now, regarded as being the proper treatment for this disease. But these two cases were a revelation to me, and since then I have realized in a number of instances that, instead of being comparatively helpless in the presence of this disease, if seen within the first twenty-four hours from its onset, it can be almost invariably aborted; and later on, even in the later stages of acute lobar pneumonitis, we have in tartar emetic a remedy of very great value. Its curative effects can be readily discerned from the following quotations from some of the standard authorities on therapeutics:

Stillé, previously quoted in this paper, states "that it produces copious bilious watery discharges from the stomach and bowels."

Brunton classes it with "general emetics, or such as act through the circulation, diminish the absorption of oxygen, and increase the evolution of carbonic acid: a depressant expectorant, increasing secretion, and generally tending to lessen blood pressure with slowing of pulse."

Bartholow: "It is therefore a specific and not a merely irritant emetic. It readily diffuses into the blood. It diminishes the number and force of the arterial pulsations, and rapidly lowers blood pressure."

Patton: "A systemic and local emetic. A cardiac, arterial, and general depressant. A protoplasmic poison. It combines with the red blood corpuscles, lessening their oxidizing power, lessening the blood pressure, and reducing the body temperature."

Hare: "Unlike aconite, which expends its chief action on the heart, this drug not only quiets and slows the pulse by an action exerted directly on the heart muscle and its motor ganglia, but in addition markedly affects the vasomotor system, thereby aiding in causing the desired fall of arterial pressure."

From the foregoing quotations in regard to the action of tartar emetic, the rationale of its decided curative action in this disease can readily be seen. That tartar emetic will abort this form of the disease I know, from the statements of Grisolle, Trousseau, Hare, and others, and from my own experience.

The indications are to reduce temperature, lessen blood pressure, slow the action of the heart, unload the alimentary canal, and promptly deplete the portal circulation, thereby giving the diaphragm freer motion; and, what is of very great importance, probably the most formidable symptom or condition that presents itself during the course of this disease, engorgement of the right cavities of the heart, is prevented if the remedy is given early, and more successfully combated later on than in any other way I know.

The remedy, when given in the first stages of the disease, and for the purpose of aborting it, should be given in doses of $\frac{1}{16}$ to $\frac{1}{8}$ grain every half hour until nausea is produced, after which it should be given with sufficient frequency and in sufficient quantity to maintain this action of the drug, which, in my experience, is followed in from two to five hours by vomiting and purging, the discharges being heavily loaded with bile and mucus. This is accompanied by a rapid reduction of temperature, the pulse is reduced in frequency and volume and becomes softer, the stitch in the side disappears, the distressing cough is greatly alleviated, the sputa become less viscid and tenacious, and the admixture of blood rapidly disappears. The physical signs reveal the fact that resolution is taking place, and the patient is convalescent.

No less prominent and distinguished authority than Osler says, in his *Practice of Medicine*, page 350, "Pneumonia is one of the diseases in which a timely venesection may save life. To be of service it should be done early. In a full-blooded, healthy man, with fever and bounding pulse, the abstraction of from twenty to thirty ounces of blood is

in every way beneficial, relieving the pain and dyspnea, reducing the temperature and allaying the cerebral symptoms so violent in some cases."

These indications can, in my opinion, be as effectually met by the administration of tartar emetic, with the advantage in favor of the latter method, that only the watery elements of the blood are withdrawn and the life-giving elements, the blood corpuscles, are undisturbed. In my experience it has seldom been deemed necessary to give other remedies in connection with this drug, unless in the later stages of the disease when tartar emetic has not been previously administered. Opium in some form may be employed to guard against the too pronounced effect of the drug, or heart tonics to reinforce the action of this organ. At the onset of the disease, when the stitch in the side is very annoying, morphia may be given hypodermatically to allay pain until the effects of the tartar emetic can be had.

BOWLING GREEN, KY.

INDUCED PREMATURE DELIVERY AND AN INCUBATOR VERSUS HEROIC SURGICAL OPERATIONS AT FULL TERM: AN ILLUSTRATIVE CASE.

BY R. B. GILBERT, M. D.

*Lecturer on Diseases of Children and Demonstrator of Anatomy in the Medical Department of the
University of Louisville.*

Mrs. B., a white married lady aged twenty-four years, came to me, in the fifth month of her third pregnancy, presenting the appearance of excellent health, barring a decided limp caused by a shortening of one and one half inches of the left leg. She gave in brief the following history :

About the age of fourteen years, after there had been inflammation and swelling about the left hip, an abscess opened upon the left buttock within two inches of the anus, which was operated on for supposed fistula in ano with no improvement of her condition.

At the age of fifteen years, in July, 1885, she was treated by Dr. A. M. Vance for a deformity, the result of hip disease. The femur was flexed to an angle of ninety degrees with the pelvis and completely adducted, and, the hip-joint being firmly fixed by bony ankylosis, she was unable to get the foot to the ground. Dr. Vance performed an osteotomy on the femur just below the trochanter, breaking the bone,

bringing it down in the best position for future use, and fixing it in plaster of Paris. She rapidly recovered her general health and was discharged in one month, the shortened leg being rendered fairly useful by the wearing of a high-heeled shoe.

In December, 1889, she married, and after a few months became pregnant. At "full term," nine months, she was delivered at the Norton Infirmary, by Drs. J. G. Cecil, Turner Anderson, and T. S. Bullock. Dr. Vance was also present by request, and came prepared to do a Porro's operation in case there was failure to deliver by forceps. These precautions were taken on account of the (oblique) deformity and narrow outlet of the pelvis resulting from the hip disease above described.

From careful digital explorations, I consider the patient to have an almost typical "Naegele's pelvis." Delivery at full term in such a case is fraught with great danger to the mother and almost certain death to the infant.

Delivery of a dead and mutilated child was accomplished after many hours of hard and tedious labor. The mother made a good recovery, and after a few months again became pregnant; the pregnancy being allowed to go on to full term. This time, October 9, 1893, she was delivered by Dr. J. A. Larrabee of a dead child after about twenty-six hours of hard labor, the mother as before making a good recovery.

About five months later, March 10, 1894, she again became pregnant for the third time, and came under my observation in the fifth month, as above stated.

After learning from her the foregoing history, and making a careful examination of her pelvic deformity, I gave the opinion that she could not possibly be safely delivered of a full-term living child, and presented for her consideration two propositions: - One was to let the pregnancy go on to full term and have a symphyseotomy performed with the hope that she could thus be delivered of a living child. The other proposition was to have delivery induced before or about the seventh month, and rear the fetus in an incubator. She accepted the latter, and the necessary arrangements were made accordingly. Dr. H. A. Cottell was called in consultation, and, after a review of the history of the case and a careful examination of the patient, concurred with me in the opinion that premature delivery was justifiable and that the time was favorable for its probably safe induction.

In the latter part of the sixth month I began operations by irrigating the vagina with hot water and packing it with sterilized lamb's

wool saturated with pure glycerine, this being repeated daily for three days, and at the same time five-grain doses of quinine were given three times daily. At the end of the third day the os was dilated sufficiently to admit the ends of two fingers.

A few hours thereafter tolerably strong uterine contractions came on, and by repeated digital manipulations the os was rapidly dilated sufficiently to admit four fingers, when the membranes were ruptured and the labor rapidly progressed to completion. A well-formed living male infant, weighing three and a quarter pounds, and measuring fourteen inches in length, was easily delivered without the aid of instruments, and without the least injury to mother or child, on the third day of October, 1894, the period of gestation being six months and twenty-three days.

Artificial respiration was required for a few minutes, after which respiration was well established, and as quickly as possible the fetus was thoroughly anointed with warm hog's lard and wiped off, thus clearing the skin of the vernix caseosa, when immediately it was wrapped in cotton batting and placed in the incubator, which had been gotten in readiness by padding it well with cotton and heating it to a temperature of 105° F. After twelve hours the temperature was allowed to gradually fall to 100°, at which it was maintained as nearly as possible.

The mother convalesced rapidly, her milk flowed freely on the fifth day after delivery, and she was up and about her room on the tenth day. The infant "thrived" well after the first few days, and is now eight weeks old, weighs six pounds, and bids fair to grow as well as any other child.

A few special precautions are necessary to be observed in rearing a premature infant, viz: The bedding and atmosphere immediately surrounding it must be kept at a temperature of about 100°. To do this, side draughts of air must be carefully prevented, and chilling the surface of its skin and extremities by bathing should be avoided. The buttocks may be cleaned by wiping them off with a soft rag wrung out of hot water, but this must be done only after each evacuation from the bowels.

It is almost impossible to maintain a uniform temperature of the baby by the appliances usually used in the nursery. It matters not if the cradle be placed before a hot fire, the current of cool air flowing from the rear part of the room toward the fire will in a few hours penetrate the thickest wrappings, and it will chill the side of the

infant next to the door even while the side next to the fire may be sufficiently warm.

When we remember how exceedingly thin the skin is, especially that covering the fingers and toes, we can readily understand how currents of air passing over them will chill the blood circulating in them, this cooled blood returning to the heart and the warm blood coming down to the extremities and being chilled in its turn; thus after a few hours the whole volume is reduced in temperature below the normal.

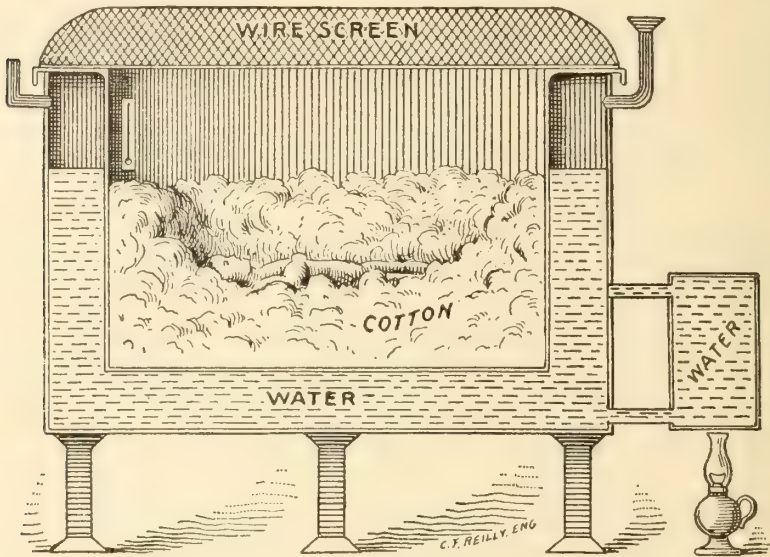
The newly-born premature infant, becoming chilled thus gradually, does not cry out or give any other warning of suffering or danger (and there is great danger if its temperature falls below 99°); but on the other hand it quietly falls into a deep sleep, its breathing gradually grows slower and slower till it dies without the slightest struggle, and may be while the nurse is holding it upon her lap wholly unaware of its condition.

The premature infant must be fed very cautiously and sparingly at first. One teaspoonful of mother's milk given every third hour is sufficient during the first week, precaution being taken to give the milk warm and direct from the breast through a nipple shield which has been dipped in warm water. No article of food whatever, except human milk should be allowed, and there should be but little trouble or expense in obtaining a wet-nurse for the short time and the small quantity of milk required.

The milk from any healthy woman who has a baby under six months of age will agree well with the new-born. In our case the supply of milk was kindly furnished by a lady living in the neighborhood, she having a baby five months old. Before the end of the first week the mother's milk flowed freely, and it was given to the infant, which, however, was not strong enough to "draw" the milk from the breast. It was fed by means of a Phoenix nipple-shield, the nipple being placed in its mouth, and the milk after being drawn by a breast-pump was poured into the bowl of the shield.

My incubator is constructed of the best quality of tin, and in principle is like that of Tarnier's incubator. It was made for me by William Ritcher, at 326 West Market Street, this city, from a drawing which I made. It consists of two compartments or boxes, an inner and an outer, with a two-inch space between the boxes for holding warm water. The inner box is for holding the child. The water is heated by an ordinary coal-oil lamp placed under a small copper

water-box that connects with the water-chamber by means of two small copper pipes, one placed above the other; by this means the hot water is made to circulate around through the chamber. A thermometer is hung inside the inner box, and the flame of the lamp is regulated so as to keep the water at the required temperature. It is best to start the machine with water previously heated, as it takes a long time to heat it sufficiently hot with the lamp. No covering except a fly-screen should be over the top of the incubator, as the infant should have free air and light overhead. The accompanying wood-cut shows a sectional view of the apparatus. It is inexpensive, and can be easily managed by any person of ordinary intelligence.



The method used in this case to induce labor, viz., lamb's wool glycerine tampons, is safe, painless, and effective, and so far as I am informed the idea is original as applied to that purpose, and it is certainly preferable to the shotted-probe, slippery-elm bougie, or Barnes' dilators.

The result in this case has been so entirely satisfactory that I shall in the future have no hesitancy in recommending the same measures to any woman having a pelvic deformity, or even a narrow outlet to the pelvis. Thus the mother's chances and that of the child are far better than they would be by waiting until full term and risking the dangers of symphyseotomy, craniotomy, Porro's operation, etc.

Indeed, in women who habitually have very difficult labors and require instrumental interference, would it not be advisable to induce

labor at the seventh month and rear the infant in an incubator? The mother would thus be saved two months of very disagreeable burden-bearing, and the probability of lacerations of the cervix and perineum with the attendant dangers of puerperal fever, etc. On the other hand the infant will fare equally as well if not better than if it were pulled through the parturient canal at full term by main strength with a pair of steel forceps clamped about its head.

In conclusion, I beg leave to venture the prediction that in the near future induced premature delivery and use of the incubator, with the minimum of danger to the mother and child, will take the place of heroic surgical procedures at full term with their maximum of dangers to both. May we not indulge the hope that by this means the universally dreaded, and by the better classes often avoided, duty of child-bearing will be shorn of much of its horrors and dangers?

LOUISVILLE.

DOMESTICITY OR MATRIARCHY, WHICH?

BY JAMES WEIR, JR., M. D.

The question of female suffrage or the entrance of women into the governmental execution of the laws of the land has been recently revived by the appearance of certain books which have had for their texts the so-called emancipation of woman. These books have been heralded far and wide as the exponents of advanced thought. The magazines and reviews of the country have fairly teemed with the discussion of this mooted point, the most noted thinkers in the land gravely arguing, some for and some against, the right of female suffrage.

Matriarchy, or female government, is not advanced thought, but is, on the contrary, as old as the human race, and a return to it at the present time is distinctly and emphatically and essentially retrograde in every particular. The doctrines of communism, socialism, and nihilism are clearly atavistic, inasmuch as they are a reversion back to the mental habitudes of our savage ancestors. The doctrines of the matriarchate are likewise degenerate beliefs, and, if held by any civilized being of to-day, are an evidence of psychic atavism. It is not to be wondered at that men and women of undoubted genius sometimes promulgate degenerate doctrines, for genius and degeneration go hand

in hand, genius oftentimes springing, like a fungus, from a degenerating and decaying organism. (*Vide* N. Y. Medical Record, August 4th; the writer, "Genius and Degeneration.")

Havelock Ellis remarks in his interesting work, *The Criminal*, when speaking of the lesions involving the brains of a certain class of degenerate beings: "It must be added, as a point of considerable importance, that in very few cases have these pathological lesions produced any traceable symptoms during life." Thus we have seen many men of genius who gave no outward, visible physical signs of degeneration, yet who showed by certain eccentricities that the leaven of genius was being fed at the expense of some portion of their physical beings. Atavism invariably attacks the physically weak, and individuals of a neurasthenic type are more frequently its victims than are any other class of individuals. Especially is this true in the case of those who suffer from psychical atavism; consequently I hold, emphatically, that the neurasthenic woman of to-day, who believes in and preaches an obsolete doctrine like woman-government, is as much a victim of psychic atavism as was Alice Mitchell, who slew Miss Johnson in Memphis several years ago, and who was justly declared a viragint by the court that tried her. Viraginity has many phases. We see a mild form of it in the tom-boy who abandons her dolls and female companions for the marbles and masculine sports of her boy acquaintances. A more pronounced form of it is to be observed in the woman who abandons female attire and puts on the habiliments of the male. The most aggravated form of all is to be found in the victim of homo-sexuality. It is invariably the case that whenever a woman takes upon herself a masculine rôle degeneration generally makes itself evident. Joan of Arc was the victim of hystero-epilepsy, while Catherine the Great was a dyspomaniac and the victim of moral anesthesia. So too was Semiramis and Sarolta, Countess V. So also were dozens of other women who threw aside femininity for masculinity. The unmistakable signs of degeneration can be traced out in the physical or psychical histories of every noted viragint of whom we know any thing whatsoever. This desire to usurp a prerogative (suffrage) heretofore held by civilized man alone, is as much a striving after masculinity as was the donning of male attire by Sarolta.

The female suffragist unquestionably belongs in the category of the viragints. I have shown elsewhere (*vide* N. Y. Medical Record, September, 1893, "Effemination and Viraginity,") that the more aggra-

vated cases of viraginity are undoubtedly instances of psycho-sexual atavism. This milder form of viraginity, that is, female suffrage, is likewise an instance of psychic atavism. This statement can be easily verified by deduction and analogy.

In the first place let us study the inception of the matriarchate and trace out the factors in its origin. It is entirely probable that early in the history of mankind matriarchy existed to some extent throughout the whole world. This must have been the case in those tribes of men who, being physically or numerically weaker than their neighbors, lost many of their women through theft, and were thus forced to share the remainder. We see the prominence which would at once redound to woman under circumstances like these. Polyandry necessarily gives woman certain privileges which monandry denies, and she is not slow to seize on these prerogatives and to use them in the furtherance of her own welfare. Polyandry, originating from any cause whatsoever, will always end in the establishment of a matriarchate. We have numerous examples of matriarchy still extant in the world, and one of the best known is that of the Nairs, a people of India inhabiting that portion of the country lying between Cape Comorin and Mangalore and the Ghâts and the Indian Ocean.

The Nair girl is carefully chaperoned until she arrives at a marriageable age, say, fourteen or fifteen years. When her marriage day arrives some complaisant individual is selected who goes through the marriage ceremony with her. As soon as this ceremony (which consists in the tying of the *tali* or marriage-cord by the man about the neck of the girl) is completed the groom is feasted and then dismissed. The wife must never again, in all her life, look at or speak to the husband. Once safely wedded the girl becomes emancipated, and can receive the attention of as many men as she may elect. Of no importance heretofore, she at once becomes a power in the councils of the nation. Of course the more lovers she has the higher her rank and the greater her influence. This is the highest and most civilized form of matriarchy extant; there are, however, numerous other examples of this form of government, in which the women are communal to the whole tribe.

Now I am not prepared to state that polyandry is one of the planks in the platform of female suffragists, but I am fully convinced that, the barriers once thrown down, and conceding the fact that all women are psychically unhealthy, no power on earth could prevent a total relapse and a full return to the habitudes of pristine matriarchy. "*Facilis est*

descensus averni!" I see, in the establishment of female suffrage, the first step toward that abyss of immoral horrors so repugnant to our cultivated ethical tastes—the matriarchate, with all of its accompanying licentiousness and gross sexual indulgence. We see this tendency toward immorality in the utterances of certain advocates of so-called woman's rights. They unhesitatingly promulgate the doctrines of free choice, which is simply the free love of their uncivilized sisters, the Nairs. Again, we see it in the doctrines taught by John Noyes of the Oneida Community, in which, if I am not mistaken, the women had the same rights as the men. The simple right to vote carries with it no immediate danger; the danger comes afterward, when woman, restrained by no check, gives free rein to her atavistic tendencies, and hurries ever backward toward the savage state of her remote ancestors. Fortunately for civilization, the vast majority of women are healthy and are contented to remain in the position allotted to them by nature. The healthy, natural female looks upon the male as being the dominant and active agent in all things, consequently is content to remain queen of that kingdom which it has taken her so many thousands of years to erect, that is, the kingdom of home and children. The child-bearing woman, rejoicing in perfect health, scouts the idea of female suffrage, and will have none of it. On the other hand, the unhealthy, neurasthenic, psychopathic woman, an unmistakable example of psychic atavism, longs for a so-called emancipation, which, if given her, would eventually make of her a moral imbecile or a sexual pervert. I do not think that I am exaggerating; I am simply forecasting a natural result which, in course of time, would undoubtedly take place. It would only take a few hundred years, perhaps, to bring about a matriarchate such as we find among the Nairs, while we must remember that it took thousands of years to bring us to our present state of civilization; so much easier is it to fall back than to advance.

In my opinion woman, as long as she remains *sana mens in sana corpore*, will never give up the brightest jewel in her crown, domesticity, for a wornout, obsolete, savage bauble like matriarchy.

OWENSBORO, KY.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.*

Stated Meeting, June 15, 1894, Dr. T. S. Bullock, President, in the chair.

Dr. F. C. Simpson read the essay; subject, Guaiacol Carbonate in Some Intestinal Disturbances:

If modern medicine has made remarkable headway during the last few years in the discovery of the causes of infectious diseases, modern chemistry has been not less active, and, we might add, not less successful, in discovering the material necessary to combat them.

The phenol group undoubtedly occupies the first rank as effective germ-destroyers and germ-poison neutralizers. Outside the body their action is marked and well known, and in the gastro-intestinal canal it is in every respect the same.

The phenol destroys disease germs and neutralizes their poisonous products in the stomach and intestines. During absorption they form more antiseptic compounds. Seifert has shown that during absorption the phenols, which are not present in the blood in the free state, combine with albuminous substances, and especially with the most reactive of these, the toxalbumens, the products of microbic life. Should fermentative action be going on in the stomach or intestines, medium doses of carbonate of guaiacol will suppress the fermentation; for this particular purpose guaiacol carbonate is especially adapted, since it induces an appetite. We know decomposition of salol occurs in the small intestine, but that of guaiacol carbonate spreads over the whole of the small intestine and is no longer traceable at the commencement of the larger intestine, and it was the experiment made by Hoelscher that led me to use it in quite a number of cases of neurasthenic troubles of the small intestine. Of course we find a number of these cases that have the neurasthenic element in them, and intestinal neurasthenia is a complex of the various nervous disturbances.

Laube has called attention to the fact that the symptoms connected with digestion are nearly always preceded by manifestations of a general nervousness. Of course there are cases where we are unable to discover any cause for this peculiar disturbance. I have found very few patients in which the nervousness was not characteristic; we find that this is either hereditary or the nervous system has been very severely

* Stenographically reported by C. C. Mapes.

taxed. Severe mental exertion or sexual excesses have a very decided influence in producing this neurasthenic intestinal trouble.

I have under my care at this time a young man, twenty-three years of age, who suffers most intensely with his intestinal tract, which I believe to be produced by sexual excesses. I have another case in a woman who had well-marked symptoms of intestinal neurosis, and who had been under the charge of quite a number of physicians. She has been entirely relieved of her sufferings by two months' treatment with guaiacol carbonate. It is in these nervous intestinal troubles that I have found the medicine of such benefit. I believe we will find it very useful in numerous cases of active bowel trouble, such as diarrhea, etc. The results can only be explained by experiment.

The leading text-books would make us believe that the treatment for these neurasthenic intestinal troubles must be through the nervous system. While I admit that a number of these cases may be treated and cured, I must deny that they can *all* be cured by treating the nervous system.

I cite the two cases above that had a most thorough treatment based upon the nervous element which was so prominent. I do not believe that the nervous system is entirely at fault, as the treatment has shown, because there is nothing in guaiacol carbonate that acts upon the nervous system. Many of these cases have a fermentative action going on in the small intestine that adds much to their discomfort, and these are the cases in which guaiacol carbonate is indicated and acts so favorably. I have several such patients under treatment with guaiacol carbonate now (I am not directing any treatment to the nervous system), and I have the first time to see it fail to make a marked improvement after a week or ten days' use.

As I have said elsewhere in this paper, I believe guaiacol carbonate is worthy of an extended trial in other intestinal troubles, and I shall use it extensively during the summer. Of course it will not be of benefit for those troubles in the larger bowel. I believe my observations in this connection are worthy of a trial, and hope the Fellows will so report at some future time.

DISCUSSION.

Dr. J. A. Larrabee: The field opened by the essayist is certainly a very important one. As far as the agent named is concerned my experience is somewhat limited, although I have given a great deal of guaiacol carbonate without aiming at the same object; my experience with

this agent has been limited to its administration in bronchial and phthisical cases, and, I may add, that I have failed to observe any improvement in such cases that I could attribute directly to the action of this remedy. There is no question but guaiacol is one of the agents that has come to stay, that is, for intestinal antisepsis. But at the present time I believe we have all concluded that salol is the ideal intestinal disinfectant. However, I see now in my readings that guaiacol, it is claimed, is doing better work in such diseases, for instance, as typhoid fever, than salol. Personally I have had no experience in this. I shall use guaiacol for summer treatment for babies, along with other remedies. I have been so well pleased and have had such marked success with salol and naphthaline in the treatment of so-called summer complaint that I have about settled down to these remedies, believing that they are good enough, and rarely prescribe any thing else. I saw four such cases last night. One was a very bad case, a typical case of summer diarrhea; malodorous and putrid stools. I prescribed six powders, composed of naphthaline one grain, two grains salol, a little sugar of milk, and one eighth grain of calomel to the powder. This morning the child was brought to my house on the street-car, a ride of perhaps two miles, at my request, because I think the trip of great benefit; it had a stool while I was waiting upon it; it had only two during the night against eight in the afternoon previous; this stool was perfectly inodorous and of better character and color. I have found no other remedy that will so quickly deodorize the stools and produce such a marked improvement; it is possible that guaiacol will do it.

Speaking of intestinal disease, one thing of importance in the classification is what Flint and others denominate "nervous dyspepsia." There is nothing more marked as a symptom of intestinal indigestion than the nervous system. I do not know that I can quote the author exactly, but it has been stated that "all diseases below the diaphragm are attended by despondency on the part of the patient." That is true, and if there is ever a woe-begone looking individual it is the woman who has intestinal indigestion. The mental status of such patients is so far below par that they are almost insane, and as soon as this intestinal indigestion is corrected they see through an entirely different light.

Dr. Simpson has certainly sprung an important question, but I wish he had extended his observations a little further, as in my reading I find that the external application of guaiacol has been praised a great deal because of its penetrating effect.

Dr. F. C. Wilson: My experience with the use of guaiacol has been limited, owing to the excessive cost, as is also the case with many other new medicines, such as piperazin. I can not understand why a remedy of this sort should cost the amount it does. Patients as a rule object to paying two or three dollars for filling a prescription that will not last more than three or four days. I have used it in cases of tuberculosis involving the lymphatic system, but the trial was not long enough to tell very much about what effect it would have. I used simple guaiacol, not the carbonate, and on increasing the dose I found that it disagreed with the stomach when the size of the dose had gotten up to eight or ten drops. The carbonate has the advantage, it is said, that the dose may be increased without any disagreeable effects being observed. I applied guaiacol freely over the glands locally without any beneficial effect as far as I could see. The trouble commenced in the chain of lymphatics in the neighborhood of the thoracic duct at first. The patient has had more or less fever now for twelve or fourteen weeks. At first the cervical lymphatic glands were not involved; there was simply a soreness along the center of the chest that could be detected by deep pressure over the front and spinal column, then gradually the cervical lymphatic glands became involved, enlarged, and infiltrated. I was satisfied from the first that it was a case of tuberculosis, as the tuberculous history in the family was strongly marked. I not only applied guaiacol locally, but gave it internally, but could not see that it influenced the temperature at all. I used creosote and benzanilide very freely without influencing the temperature more than any other agent of that class that might have been made use of.

I merely wish to commend the carbonate of guaiacol based upon the limited experience I have had with it; it certainly has the reputation of accomplishing a great deal, and I would use it much more except for its excessive cost.

Dr. T. C. Evans (visiting): I have not had any experience with the use of guaiacol internally. About a month ago one of the members of this Society reported a case of pharyngeal trouble, and referred to several others, especially those of a rheumatic nature, which had been relieved by the local application of guaiacol. I had a bottle of guaiacol in my office, and the results seemed so favorable that I thought I would try it on the next available case. Last week a patient came to my office suffering from pharyngitis, and I applied a few drops of guaiacol for its relief; this patient did not complain of much pain at the

time; after a few hours I was sent for, but being out of my office did not get the message. The patient returned the following day, and an examination revealed a large cicatrix where application had been made to the mucous membrane. It looked identically like the burn of carbolic acid. I have tried it in several other cases, the patients complaining of very little pain, and I believe some benefit followed its use.

I congratulate myself that none of the guaiacol dropped into the larynx in the case I have referred to, as that certainly might have been a very serious accident.

Dr. C. Skinner: I have never tried guaiacol, and am glad attention has been called to it, because I recognize that its use may be indicated in such cases as the essayist has referred to, and especially in those of a tuberculous nature. I have always employed a combination of carbolic acid and nux vomica in form of capsule for fermentative diarrhea, which works very nicely, of course controlling the action of the bowels if necessary with opium. Salol I have used as an intestinal disinfectant in typhoid fever and what we ordinarily term summer complaint in children, with excellent results. As Dr. Larrabee has stated, salol acts so well and so promptly in these cases, that I have felt (and he has expressed my sentiments exactly) that I did not ask for any thing better. I give it with a great deal of confidence, and have never been disappointed. Of course it is possible that guaiacol carbonate possesses qualities superior to salol and may be more efficacious in these cases, and if such is proven I shall adopt it as the essayist has done.

The subject is an important one for consideration for the reason already mentioned, that these patients take such a despondent view of life; they are a burden to themselves and everybody else, and if any thing can be found to relieve them it will certainly be a boon. Take, for instance, cases of tuberculosis, how hopeful the patients are and how certain they are of recovery until the mesenteric glands become involved, when they give up almost immediately. I have never seen a case of tuberculosis but that so long as the trouble was confined to the lungs the patient was hopeful, and the moment the bowels become affected, as evidenced by the peculiar diarrhea, in one or two days he would give up. This is one reason why death occurs so soon when diarrhea sets up. If guaiacol carbonate can exert any influence over these cases, it is certainly worthy of a trial. I believe that its cost will eventually come down, as has been the case with most other drugs. I wish to add my commendation, and shall try the remedy in the future.

Dr. William Bailey: I think the year 1894 is an unfortunate time to have two or three remedies of this class introduced. Until the tariff is reduced on these remedies I do not think we can have a very general introduction of them, and we will not get the benefits from this remedy mentioned by the essayist until the price in some way has been reduced. I remember one of the first prescriptions made for cocaine in this city; the man for whom it was written, although he was well able to pay, did not like to pay as much as seventy-five dollars—that was the price of the prescription.

There is another remedy I want to place alongside of guaiacol carbonate, corresponding to it, and of service for the very same reason, that is creosote carbonate. I prescribe creosote carbonate for the very reason that I would use guaiacol carbonate, namely: that in combination with carbonic acid the stomach is so much more tolerant of it. We have found in treating tuberculosis with creosote that there is great difficulty in getting the patient to tolerate enough of it to accomplish the purpose, although I have one patient with phthisis taking twenty-five drops three times a day of beechwood creosote quite comfortably. I doubt if guaiacol could be given in doses of twenty-five drops. In some cases where there is an inability to take creosote above eight or ten drops, I have given creosote carbonate, but it is difficult to get them to continue the use of this remedy as the price is about equal to guaiacol carbonate, two dollars and fifty cents to three dollars per ounce. While creosote carbonate contains over ninety per cent of creosote it is tolerated in teaspoonful doses as well as creosote is tolerated in doses from ten to twenty drops, and it is certainly a great advantage to get the benefit of so much creosote or so much guaiacol with so little disturbance of the stomach. The urine sometimes becomes dark, but I have not seen any thing extreme enough to necessitate leaving off the remedy.

I think we can very well understand how the involvement of the intestinal tract makes so great an impression upon the nervous system, when we remember the very extensive distribution of the nervous system in this neighborhood, where we have spread over a very large surface the nerve distribution, that disease here makes more impression than elsewhere through the splanchnic nerves.

Like Dr. Larrabee, I have found naphthaline and salol so satisfactory that I have not in the treatment of infantile diarrhea found it necessary to adopt this remedy that is so expensive. These are comparatively cheap, but at the same time we find in these two remedies such great

value that I for one shall be very reluctant to give them up. I have no doubt that eventually the price of guaiacol will be materially reduced. Beechwood creosote can now be procured for thirty-five cents an ounce, but used to be much higher; combined with carbonic-acid gas, which is so cheap, it ought not to make a very expensive prescription. Take guaiacol carbonate at two to three dollars per ounce, or if you could get it at one dollar an ounce at wholesale, it would hardly be dispensed at less than two dollars; if you give one half dram at a dose, you find that you have only sixteen doses for two dollars; that in ordinary practice would be quite expensive.

So far as the local application of guaiacol to the right side of the abdomen for the purpose of reduction of temperature and relief of typhoid fever is concerned, this is a matter in which I have had no experience, and I must say that I am extremely doubtful if any penetration takes place at that point to affect the microbe in the small intestine. It must be some other way in which the benefit accrues. I think the application of guaiacol to the left side of the abdomen in typhoid fever would do just as well as on the right. I can not see why the local application of such an agent in typhoid fever would affect the temperature or the disease more favorably if applied to the right side than at any other point. I am a little skeptical as to the introduction of medicinal agents in this way, and hardly believe that guaiacol applied to the skin here affects the microbe of typhoid fever in the ileum. I may have to yield that point, but I am incredulous as far as this is concerned, and believe if guaiacol is capable of reducing the temperature, it will do so equally well when applied to any other part of the body. But I do believe that in guaiacol and creosote we have two remedies that are of great value in the treatment of bowel troubles, in controlling the process of decay, I might say, in arresting the fermentative processes within the bowel. In other words, that these remedies exert a decided action over the fermentative changes that we know are going on in the alimentary canal. The benefit that they have in tubercular phthisis I think is largely the local effect of the remedy.

We introduce creosote, for instance, into the alimentary canal, the breath becomes laden with its odor and it is carried over the diseased surfaces of the lung. I believe that there are a great many remedies that are applied to diseased surfaces in the process of elimination, just as we treat the urinary tract by remedies introduced by the stomach; here nature separates, and then there is a local application. I think

this is where much of the good comes in the treatment of phthisis by creosote and other remedies. This has been my method of explaining their physiological action. Many patients suffering from tuberculous and other diseases under creosote or guaiacol may show a reduction of temperature, an improved appetite, improved digestion, etc., and we are successful in the treatment, as we are able to nourish, and it may be in some way that the digestive process both in the stomach and in the intestine is materially enhanced by the effect of the remedy on the intestinal bacteria.

Dr. Larrabee: I received some time ago a very excellent combination of creosote and liquid peptonoids from the Arlington Chemical Company. The supply amounted to six or eight large bottles. I immediately commenced giving it to some patients I had under treatment, and found that it was an improvement in the manner of giving creosote. It benefits the nutrition of the patient, and I think it is a very valuable preparation. The dose as recommended contains a sufficient amount of beechwood creosote, and, combined with the peptonoids, is not unpleasant to take.

Speaking of the two remedies, guaiacol and creosote, they are about one and the same thing: there is really very little difference in their chemical composition. Prescribing these agents is about like advising a patient to go to some of the mineral springs; he will visit seven different springs and they will all have a good effect.

I have given for the last fifteen years a bolus composed of crude petroleum in the treatment of phthisis with almost miraculous results; in many cases of chronic bronchitis I have had the same good effects. The crude petroleum is worked into a ball and covered with a capsule and it is ready for use. I have patients who have taken four hundred, five hundred, and eight hundred of these capsules in the course of one, two, and three years. They come regularly after them, and there is not a State or Territory in the whole country to which they have not been sent at the request of some person. In the course of two weeks after commencing to take this petroleum mass the skin smells like coal oil; the axillary glands give out an odor of coal oil very much like an oil lamp; *pari passu* improvement comes in their nutrition, etc.

Dr. Bailey has hit the nail on the head when he says that many remedies reach the diseased surfaces through the process of elimination. This is especially true with substances such as petroleum and terebinthina. I think the thorough saturation with this crude petroleum mass

does just about as much good in the treatment of phthisis and kindred diseases as any thing we can employ.

One word in regard to the absorption of guaiacol, etc., applied locally. The idea of putting it on in one particular spot is a chimera, of course it must be. But I have the greatest faith in the absorption of terebinthinate substances through the abdominal wall into the circulation. We know that if turpentine is applied over the abdomen, in a very few minutes, if we test the urine, evidences of turpentine will be found, showing that it is very rapidly taken up by the circulation. Again the application of medicines with the expectation that they would be absorbed into the venous system would be reasonable, and we know that the application of stupes, etc., over the abdomen in typhoid fever does have a general therapeutic effect, just as the application of turpentine will produce strangury and other well-known conditions. I do not wish to be understood as indorsing the local application of guaiacol, however, for the purposes that have been suggested, as it is a matter in which I have had no experience. I have about the same opinion as held by Dr. Bailey concerning that.

Dr. Simpson (closing the discussion): This subject was brought to my attention by the use of guaiacol carbonate in tuberculous conditions. I noticed that it produced a very beneficial effect upon the diarrhea. I had under observation a patient who was tuberculous, and there was also considerable fermentative diarrhea; the evacuations were excessively acid. Under the use of guaiacol carbonate in ten-grain doses for two weeks there was a marked improvement in the condition of the bowels. Just at that time I happened to have a case in which there was a fermentative action which I believed to be of a neurotic character, and as such a happy effect had been produced by the guaiacol carbonate in the case having the tuberculous condition, I was led to use the remedy in the neurasthenic condition, and the results obtained were equally as good. As I have said, the trouble was largely neurotic in character, there was nervous depression and some tendency to diarrhea, which would come on about a half hour after the ingestion of food.

In the case of the young man mentioned in my paper, the symptoms were especially severe, and it became necessary on some occasions to administer hypodermatics of morphine to quiet him. I began the use of guaiacol carbonate, and in the course of a short time, under eight-grain doses every four hours in capsule, there was a very marked improvement, and he is now entirely relieved. One of the advantages I

have found from this remedy is that it is non-irritative. I have never seen any irritation whatever from as much as sixty grains a day.

In the case of the woman that I called attention to, she was also one of those neurotic patients, having many nervous manifestations. She would suffer, fifteen minutes after taking a meal, with severe symptoms of indigestion, considerable pain over the region of the stomach; she even thought on several occasions that she was going to die before the doctor could reach her. She continued in this way for quite a while. I then commenced the use of guaiacol carbonate, and in a few weeks she was entirely relieved. I have used it in six or seven cases of fermentative condition of the small intestine with excellent results, but my experience has not led me to employ it in troubles referred to the large bowel. One advantage guaiacol carbonate has over salol is that it is capable of spreading over so much of the surface of the small intestine; again, it seems to be absorbed much more rapidly; it seems to be more readily diffused over the intestine, and acts, I think, much more rapidly than does salol. As stated in my paper, I believe this remedy is entitled to a trial in all fermentative intestinal troubles, that is, occurring in the small bowel.

Of course the cost is an important item. In the course of time I believe the price will be reduced so that it will be within the reach of almost any one for whom we would be apt to prescribe it.

To return to the question of using this drug in tuberculosis. I have given as much as sixty grains a day, and have not seen any marked benefit. I have one patient who has taken three ounces of it, has been using it since March, and he came back to me to-day with a hemorrhage. I have never seen any marked improvement from its use in these cases except where the intestinal canal was involved, and there I have had some very decided beneficial effects. I believe this will open quite an extensive field for the future. I have used salol, naphthaline, and many other preparations of reputed value in fermentative intestinal troubles without very much benefit. I remember one man in particular who has been treated by several good physicians by means of salol, etc., without any appreciable improvement. He has been under treatment with guaiacol carbonate for a few weeks, and is now better than he has been in three years. I shall hope for a further reduction in the cost, as I believe it an ideal preparation in certain cases.

J. L. HOWARD, M. D., *Secretary.*

Reviews and Bibliography.

Text-Book of Medical Jurisprudence and Toxicology. By JOHN J. REESE, M. D., Late Professor of Medical Jurisprudence and Toxicology in the University of Pennsylvania; late President of the Medical Jurisprudence Society of Pennsylvania. Fourth edition. Revised by HENRY LEFFMAN, A. M., M. D., Ph. D., Professor of Chemistry and Toxicology in the Woman's Medical College of Pennsylvania, etc. 624 pp. Price, \$3. Philadelphia: P. Blakiston, Son & Co. 1894.

Convinced, after many years of teaching, that students are often deterred from undertaking the study of medical jurisprudence on finding themselves confronted by the ponderous volumes of the recognized masters, Prof. Reese set about to write a treatise on the subject adapted to the time and means at the disposal of the great majority of medical students. Into this handy volume he has condensed all the essentials of the science, and presented them in a simple and familiar style, giving greater prominence to those of the highest practical value. It is not often that compends are met with that furnish so easy reading, both on account of the logical sequence of the thought and the smooth-flowing style. While, of course, elaboration of the various principles was out of the question, none that is of real value in the whole science has failed of mention. In revising the work Dr. Leffman has had the assistance of Dr. Coplin and Dr. Charles K. Mills, the latter especially eminent in this department of science. The greatest change has been made in toxicology, in which the nomenclature has been adapted to established principles more closely than in former editions. The book happily meets the needs of students, and we unqualifiedly commend it as abundantly sufficient for the needs of those who do not expect to qualify themselves as experts or teachers.

D. T. S.

Medical Jurisprudence, Forensic Medicine, and Toxicology. By R. A. WITTHAUS, A. M., M. D., Professor of Chemistry, Physics, and Hygiene in the University of New York, and TRACY B. BECKER, A. B., LL. B., Counsellor at Law, Professor of Criminal Law and Medical Jurisprudence in the University of Buffalo. Vol. 2. 751 pp. New York: William Wood & Co. 1894.

This second volume of Witthaus and Becker's Medical Jurisprudence bears out the favorable judgment passed when the first volume of the series was given to the profession. For matter it seems to leave nothing to be desired, no important subject being left without the fullest elucidation that would seem to be necessary. A further revision could in many places have added to completeness, to lucidity, and to smoothness, as well as literary finish. The volume opens with an excellent article on bloodstains by Dr. Edward S. Wood, of Harvard, which is followed by one equally excellent by the same author on the examination of hair. Cameron, of McGill

University, follows with two unsurpassed articles on abortion and infanticide. Other notable contributions are the exhaustive article on rape by Drs. Edgar and Johnston, and especially the elaborate article on railway injuries by Dr. Outten. The work is illustrated by a limited number of cuts, which do not evidence much artistic attention, though they meet the requirements of illustration. Brought to a finish in this excellent style, the work will supply a library adequate to meet the needs of those most fully occupied in matters of medical jurisprudence.

D. T. S.

Materia Medica, Pharmacy, Pharmacology, and Therapeutics. By W. HALE WHITE, M. D., F. R. C. P., Physician to and Lecturer on Materia Medica and Therapeutics at Guy's Hospital, London; Examiner in Materia Medica to the Conjoint Board of England, etc. Edited by REYNOLD W. WILCOX, M. A., LL. D., Professor of Clinical Medicine and Therapeutics at the New York Post-Graduate Medical School and Hospital, etc. Second American edition, thoroughly revised. 661 pp. Price, \$3. Philadelphia: P. Blakiston, Son & Co. 1894.

It is a real treat to pick up a work like this, full and compact and giving evidence that the author and editor write with the confidence of experience and unbiased investigation. It is evidently a work to be depended upon, and, for the student who desires to gain information that will serve him to the end of his career, it deserves to be commended in the highest terms. We predict for it extensive use in the medical schools of the country, while for practitioners likewise it will be found very helpful as well as quite authoritative.

D. T. S.

A Hand-Book of Medical Microscopy for Students and General Practitioners, including Chapters on Bacteriology, Neoplasms, and Urinary Examinations. By JAMES E. REEVES, M. D. With a glossary and numerous illustrations (partly in colors). 257 pp. Philadelphia: P. Blakiston, Son & Co. 1894.

Dr. Reeves is well known throughout the country as an enthusiastic devotee of microscopy, and, if in this he has fallen a little short of the best classic works on the subject, he has nevertheless supplied an interesting volume, and shown by a most commendable example how much an industrious, painstaking man in love with his work may accomplish unassisted. His example is an inspiration, and his work in a high degree creditable.

D. T. S.

Abstracts and Selections.

THE TREATMENT OF BLEEDING FROM THE NOSE.—The *Revue internationale de rhinologie, otologie et laryngologie* for August 10th publishes an article by Dr. Baumgarten, of Budapest, in which he recommends the following methods in the treatment of epistaxis: A thorough examination of the inside of the nose must be made in order to discover where the bleeding comes from. Usually there are to be seen at the anterior part of the septum, rarely elsewhere, one or more small superficial vessels of a red color, or else little nodules, erosions, and varicose veins, or a small empty vessel looking blackish on a red background. Occasionally the hemorrhagic spot is covered with fresh blood-crusts which must be softened and carefully raised in order to expose the appearances referred to. If there is nothing of a suspicious nature to be seen, the patient must be made to blow his nose several times. Another method is to apply a tampon of wet cotton to the septum, and press it more and more firmly against the place until the morbid spot bleeds. Sometimes this brings on at once a more abundant hemorrhage, which makes the continued application of the tampon necessary before the bleeding spot can be destroyed. For this destruction the author has used the galvanic cautery or chromic acid, sometimes both. He touches the spot with the cautery, which is very painful, and the wire loop can not always be withdrawn while it is still red, so that the eschar is apt to be removed at the same time. Then the small wound bleeds feebly, and it should be cauterized with chromic acid, which, according to Dr. Bresgen, is an excellent hemostatic. When operating on children or on timid persons Dr. Baumgarten uses the chromic acid only, but the cauterizations must be repeated two or more times after the eschar has fallen or after a fresh hemorrhage. This treatment must be continued until a plainly visible cicatrix is produced. The patient must be told not to scratch the eschar, to apply a little oil or grease to the spot, to keep quiet, to avoid handling his nose, and not to blow it too hard.

Sometimes sneezing occurs, and this may bring on a hemorrhage through the eschar. In this case the application must be renewed. A hemorrhage must always be arrested before cauterizing the spot from which it proceeds. After the source of the hemorrhage has been ascertained the spot is washed with warm water, the nostril is dilated, and as large a tampon as possible is inserted, against which the wing of the nostril is pressed with the finger. That generally suffices, as nearly all forms of epistaxis have their origin in the forepart of the nasal passages, but the patient must hold himself erect and remain quiet. After this pressure has been continued for a moment the tampon is slowly withdrawn in

order to find the origin of the hemorrhage. A second tampon is then pressed against the spot. The epistaxis is thus often arrested. Afterward the place may be cauterized with chromic acid. The author has often succeeded in covering the bloody points with a layer of chromic acid by pushing the tampon forward very gently; it can not always be removed immediately, because the wound will bleed anew, and it must be left until the following day, or longer if necessary. The author, however, has never had to repeat this for more than three days. He always uses cotton saturated with carbolic acid or some other aseptic cotton, but never iron perchloride, as that only cauterizes.

If the blood runs through the tampon or into the pharynx, the physician should use the same means as those employed in the more serious hemorrhages. After the part has been washed with warm water, a strip of iodoform gauze as wide as a finger should be pushed as far as the choana; then the entire nasal fossa should be packed with the same material. This may be done easily and without pain; it is better than Belloc's method, and may be accomplished even with a contracted nostril. With regard to Belloc's method, Dr. Baumgarten thinks it is not sufficient, and that it may produce accidents to the ear, etc. In one case, that of an old man who was the subject of advanced arteriosclerosis, Belloc's tampon was inserted, and several tampons were added anteriorly. Two physicians had tried to stop the bleeding, but their efforts had been of no avail. The velum of the palate had been cut, and it was ulcerated and edematous. The author, who was called in, immediately removed every thing, and while the bleeding continued he applied strips of iodoform gauze, and two days afterward the hemorrhage was arrested.

As a palliative method, or in cases where the anterior tampon is not efficacious, or where the patient is taking care of himself pending the physician's arrival, the author recommends the use of warm water, which is a better hemostatic than cold water or ice water, or else lemon juice. A solution of iron perchloride is an excellent hemostatic, he says, but it cauterizes the neighboring region and prevents the physician from distinguishing the diseased spot.

When the hemorrhage finally stops, and the bleeding points are found, they must be cauterized. There is no harm in cauterizing somewhat around the bleeding spot; on the contrary, the indications are to burn the entire vicinity. In cases of arteriosclerosis the author has been obliged to cauterize the entire pituitary surface as far as the choana, as the iodoformed strips were removed one after another. These cauterizations should be repeated several times, and every suspected place covered anew with chromic acid. These tampons of iodoform gauze are not disagreeable to the patient, and they may be left for two days. Before removing them the nose should be washed with warm water, and the strips of gauze should be drawn away very gently in order to prevent the hemorrhage from breaking out again, and any suspected places immediately cauterized, even at the risk of touch-

ing a healthy spot. The patient may take wine and iron, but should avoid coffee, tea, and effervescing drinks. All internal medicines are useless and harmful.—*New York Medical Journal.*

THE MENTAL CONDITION IN CHOREA.—Dr. A. Breton, after an investigation of a large number of cases of chorea, has arrived at the following conclusions in reference to the condition of the mental powers in patients suffering from this complaint. He has found that the majority of cases of chorea are complicated by perversion of mental processes more or less marked. The psychical symptoms may be divided into two groups: in the first he places those which include alterations of moral sensibility, of character, of intelligence, want of attention, and loss of memory and of affection for those nearly related to the patient; and in the second those which occur more rarely, such as "night terrors," hallucinations, and what Dr. Breton terms "folie choréique." The first class of phenomena are so common as almost to form one of the ordinary symptoms of chorea. Fright, terrors, and hallucinations are rare, while "folie choréique" is very exceptional. Hallucinations are generally observed at night, just when the patient is falling asleep, but they may continue for some time, interrupting or preventing sleep; those of sight generally predominate, but more rarely there may be observed those of hearing, taste, smell, or even touch. Affections of speech may also be mentioned, affecting the muscles of the tongue and lips, not caused by chorea, but due to mental causes. "Folie choréique" may take the form of simple mania, of delirium, of mania with hallucinations, or revert to a melancholic form, with profound depression and suicidal tendencies. Recovery from the mental symptoms in acute cases of chorea usually follows the cessation of the motor symptoms caused by the chorea; they cease when convalescence from the primary disease is established. But the neurosis may pave the way for permanent psychical trouble, such as moral degradation, mental alienation, and dementia. Dr. Breton, however, believes that the more pronounced psychical phenomena met with in the course of chorea are not directly due to the disease, but only receive from it special characters. They are complications rather than symptoms proper, and hereditary taint can always be traced; and he would look upon them as mental phenomena occurring in patients who have a hereditary tendency to such attacks, which have been precipitated by the chorea.—*Lancet.*

A DEATH FROM THE A.-C.-E. MIXTURE.—On the 6th inst. Dr. R. Stansbury Sutton had a death occur from the administration of the A.-C.-E. mixture. The patient, a woman, forty-four years of age, with a bleeding fibroid, was being anesthetized in her bed, outside of the operating-room. The anesthetic was given by an experienced assistant; it was given through an open cone, the top of which was filled with absorbent cotton. The entire amount of anesthetic given was six drams, of which four were probably inhaled. The patient was a large, fleshy, and anemic subject. Prior to

the administration of the anesthetic, she was given an eighth of a grain of morphine hypodermically. Ten days before this Dr. Sutton had given her an anesthetic (sulphuric ether) for an examination, and no trouble had resulted upon that occasion. Her heart was examined prior to the administration of the anesthetic on each occasion, and no organic lesion was detected. The time from the moment she began taking the A.-C.-E. mixture until she was dead did not exceed fifteen minutes. The patient was inverted, artificial respiration was instituted, and the tongue was drawn out and kept out. Trinitrin and brandy were injected under the skin, the left chest was slapped freely, and while the nurse was starting the battery the patient was pronounced dead.—*New York Medical Journal*.

ON IMMEDIATE SURGICAL INTERFERENCE IN CASES OF PERFORATION OF THE STOMACH BY ULCER.—Under the above caption, Michaux, of Paris, reported to the Eighth French Congress of Surgery, October 10, 1894, the details of an operation performed by him September 23, 1894, whereby the life of a patient was rescued from peritonitis and death. The cause was perforative ulcer; the patient, a robust man, aged thirty-one years. The symptoms on admission to Beaujon Hospital were those of peritonitis rapidly extending. The history was clearly that of round ulcer.

On opening the abdomen, Dr. Michaux discovered a small linear perforation high up on the anterior surface of the stomach, very near the cardia. At each respiratory movement a leakage of fluid from the stomach took place from this orifice.

The abdomen was washed out with boiled water, and large antiseptic sponges were placed, for protection, in the lower part of the abdomen. The surgeon endeavored to suture the borders of the perforation, but the silk threads tore through on account of friability of the tissues. The high, inaccessible situation of the ulcer rendered excision impossible. As a somewhat desperate experiment Michaux made a fold of the front wall of the stomach by which the perforation was completely buried; the ulcer was fixed in the bottom of this fold by a double row of Lembert silk sutures; the first row extended beyond the ulcer, which could be seen, and which had the dimensions of a five-franc piece. The wound was left open, an iodoform-gauze tent being inserted for drainage.

The patient was fed by the rectum for a long time; the gauze pledget was left in for eight days. A purulent fistula remained for six months; it then healed and the patient was reported as perfectly well and able to work.

Michaux remarks that perforation is a frequent complication of ulcer (thirteen per cent), and often takes place when the ulcer is on the anterior wall, near the cardia. The signs by which perforation is recognized are, agonizing epigastric pain, a sensation of burning and of rending, increased by ingestion of food and drink; retraction of the belly; vomiting infrequent or *nil*; in fine, signs of peritonitis with elevation of temperature, or collapse with hypothermia, tympanitic distension, etc.

Mikulicz, in 1884, was the first to operate for peritonitis caused by perforation of round ulcer. Since then the operation has been performed by Steinthal, Nissen, Körte, Czerny, Stelzner, Kriege, in Germany; by Hastings, Gilford, Howard, Lee, Dickenson, Morse, and Maclaren, in England; by Roux, Poucet, Walther, LaDentu, Michaux, and others in France.

Michaux's statistics of the operation done under such circumstances comprise twenty-five cases in all; the first ten were fatal; of the following fifteen, there were five recoveries and ten deaths. Kriege, of Berlin, had the first successful case; those of Morse, Maclaren, Roux, and Michaux were also successful. The operation should be done early to be of any effect. Michaux emphasizes the importance of a very early operation—certainly within the first fifteen hours—and of a very free incision, with subsequent free drainage.—*Boston Medical and Surgical Journal*.

INJURY TO THE CAUDA EQUINA AND LUMBAR ENLARGEMENT.—Professor Schultze, of Bonn, relates an interesting case of which a short abstract appears in a recent number of the *Neurologisches Centralblatt*. A young man aged twenty-one years fell a distance of eight meters on his hips, and suffered afterward from pains in his legs and sacrum and numbness as low as the knees, with incontinence of urine and feces. After nine months he could walk with crutches, his gait, however, being feeble and his knees and feet rotated outward. There was some prominence of the second lumbar vertebra, and there was a great amount of atrophy below the knees, the left gastrocnemius, soleus, and tibialis anticus and posticus muscles being almost completely paralyzed. On the right side also below the knees the muscles were almost completely disabled. The gluteal regions also on each side were much affected, and so was the region of the sciatic and of the superior and inferior gluteal nerves, while the muscles supplied by the cruralis and obturator nerves remained free. There were also fibrillary twitchings in both glutei. In both peroneal regions, except in the peroneus longus and extensor communis digitorum, there was complete reaction of degeneration, and in the calf muscles partial; while in the glutei there was loss of the direct electrical excitability. The knee-jerk on each side was abolished, and the cremaster reflex was weak. There was weakness of the sphincter ani and of the *detrusor vesicæ*, but no priapism. Sensibility was much impaired on both sides below the knee and on the back of the thigh, and there was anesthesia of the scrotum and perineum; while there was a hyperesthetic zone on both sides in the region of Poupart's ligament. It is not easy, Professor Schultze says, in this case to decide whether the cord itself, or only the cauda equina, or both, were affected.—*Lancet*.

INDOL REACTION.—The presence of a body giving the reaction of indol in cultures of the bacillus coli communis and its absence in cultures of the bacillus of typhoid was first brought into prominence by Kitasato in 1889. Since then most bacteriologists have accepted this test as one of the means

of differentiation between the two organisms. A few observers have disputed this point. Rodet and Roux found the indol reaction very feeble in cultures of the bacillus coli communis, and their opinion was sustained by Malvoz and Vallet. Chantemesse and Vallet found a faint reaction like that of indol on applying the test to old cultures of the bacillus of typhoid. Dunbar, in his exhaustive table of the difference between the two organisms, says that the reaction is negative with both. To settle this point Remy and Sugg inaugurated an elaborate series of experiments and were able to show that the different results were caused in this as in other respects by the fact that the various experimenters used different specimens or varieties of the bacillus coli communis. Remy and Sugg employed Salkowski's and Neucki's tests for indol, and a culture medium composed of water, 100 c. c., peptone siccum (Witte's), 3 gms., sodium chloride, $\frac{1}{2}$ gm. To perform Salkowski's test, take 10 c. c. of a twenty-four hour culture in this medium at 37° C., and add 1 c. c. of a solution of nitrite of potassium ($\frac{1}{5000}$). Then add slowly 1 c. c. of 25 per cent sulphuric acid (C. P.). Neucki's test is performed by acidifying the culture with a few drops of acetic acid and shaking with 2-3 c. c. of alcohol and ether, equal parts. Decant the ether and evaporate it on porcelain. Then add a drop of solution of nitrite of potassium ($\frac{1}{5000}$) and a drop or two of sulphuric acid.

By either of these methods most varieties of bacillus coli communis give a pronounced red color after standing a short time. The variety called bacillus pyogenes fetidus gives the deepest color. Other varieties give paler colors, and a few give no color at all. Remy and Sugg found no trace of color in any of the specimens of the bacillus of typhoid which they tested in this way. The test is therefore of considerable value when positive, but is not conclusive when negative.—*Boston Medical and Surgical Journal*.

UNCONSCIOUS DELIVERY.—Le Blond (*Jour. de méd. de Paris*) related in July a remarkable case before the Medico-legal Society of Paris. A woman, aged twenty-seven, who had been seduced and deserted, was seized with slight colicky pains, but continued to work. In the course of the following night she was attacked with still more severe pain. Thinking that an action of the bowels would give relief, she sat upon her chamber utensil; on straining, a live child was born. This alarmed her greatly, but she cut the cord with scissors, wrapped the infant in a cloth, and walked down stairs, telling the people in the house, in fear and trembling, what had happened. Violent flooding set in. The cord had not been tied. Early in the morning Le Blond saw the patient, and found the placenta still in the vagina. He extracted it. The mother and child did very well. Had the child died the mother would have been very strongly suspected of murder, especially if she had attempted to defecate in a public privy, in which case the child would almost inevitably have been killed.—*New York Medical Journal*.

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PUERPERAL INFECTION WITH THE BACTERIUM COLI COMMUNE.

The enigma or conundrum involved in the etiology of puerperal infection seems not yet to have been answered, though not a few obstetric Oedipi believe that they have read the riddle right. The sphynx, however, is not confounded, and every now and then we are treated to a guess with sometimes seemingly a good scientific background like the following, which the Philadelphia Medical News translates from the *Archiv. für Gynäkologie*:

Eisenhart has reported the case of a woman, thirty-two years old, who, following her fifth (uncomplicated) labor, presented fever, pain in the right side, and an offensive vaginal discharge. The functions of the bladder and bowels were undisturbed, but an obstinate swelling of the right foot appeared. The uterus was displaced backward and somewhat to the right. Upon its right margin a painful exudate was detectable, while the cervix was surrounded by a suppurating ulcer. The temperature was 104° , the pulse 122. A diagnosis of acute purulent parametritis was made. Following the use of the ice-bag, the administration of opium, and the employment of vaginal injections of lysol, the symptoms soon disappeared. In a short time, however, pain appeared at the flexure of the right thigh, where there was found a dense infiltration, extending three or four fingers' breadth above Poupart's ligament, and beneath which could be felt a thrombus occluding the femoral vein. Local applications and manipulations failed to afford relief. In a short time an abscess formed above Poupart's ligament, which on palpa-

tion yielded a sense of the presence of air. A similar sensation was imparted over a small area below Poupart's ligament. Additional tumefaction was observed, involving the the upper third of the right thigh. This was sensitive, soft and elastic. The patient referred certain peculiar sensations and sounds to the bladder at the termination of micturition. The urine removed by catheter was of orange-yellow color, and emitted a peculiar but not disagreeable aromatic odor. It had a specific gravity of 1015, was of a feebly acid reaction, and deposited considerable sediment. It contained large quantities of albumen, but no blood. Microscopically large numbers of colorless corpuscles were found, but no tube-casts. Bacteriologic investigation disclosed the presence of the bacterium coli commune. The swelling of the thigh increased, and edema of the dorsum of the right foot and the greater and lesser labia became added to the symptoms. An incision into the swelling gave exit to a large quantity of thick, creamy pus, containing many large and small air-bubbles. This pus had a peculiar though not putrid or fecal odor. Bacteriologic examination disclosed also the presence of the bacterium coli commune. The abscess-cavity at first secreted considerable quantities of pus, which later diminished under the use of methyl-violet in the form of bougies. For a short time the condition of the patient improved, the swelling and edema disappeared, pus was freely discharged in moderate amount, but subsequently the woman became worse. Hyaline casts were for the first time found in the urine. Symptoms of nephritis with uremia developed and finally progressed to a fatal issue.

On *post-mortem* examination a moderate excess of fluid was found in the pericardial, pleural, and peritoneal cavities. The intestinal serosa was smooth and glossy, and free from adhesions, excepting on the part of the rectum with the adjacent uterus. The spleen was enlarged and soft. The kidneys were in a state of parenchymatous degeneration, together with amyloid change. The external wound communicated with a sub-peritoneal sinus passing from the middle of the horizontal branch of the right pubic bone backward and upward toward the vertebral column, and terminating at the level of the promontory of the sacrum in a cavity about as large as a pigeon's egg, filled with thick pus, and not distinctly circumscribed from the surrounding structures, which appeared undermined and friable. Behind and to the right side of the uterus were numerous cicatrices. An incision into the upper third of the right thigh disclosed the presence of pus distributed between the muscles and other structures.

If the foregoing be true, the obstetrician who is unfortunate enough to run against a case of puerperal septic fever may take courage, since auto-infection is proved to be a fact, and no tear or abrasion need be suffered by a woman during labor to serve as the port of entry for the infecting germ.

It would seem that we have always under culture in the large intestine the means for our destruction whenever it shall please the powers that be to kill us, and that all that is necessary is that a focus of inflam-

mation shall be set up adjacent to the *habitat* of the dread bacillus coli commune, when it will yield to the temptation to migrate, and at once enter upon its work of death. This may happen to any man or woman, but the latter by reason of the incidents of parturition has her life far the oftener put in jeopardy.

It is a fact that the bacilli coli commune have been found in the liver, kidneys, and other organs after death of gastro-entero-colitis, etc.; but the explanation of their migration here is comparatively easy, since the destructive inflammation which takes place in the intestinal mucous membrane in the disease named favors the entrance of the bacillus into the portal, and later the general, circulation. But why these microbes should leave the healthy intestinal tract, where they are "native and to the manor born," and go migrating into the uterus or vagina because a focus of inflammation happens to be established in one or both these organs, is a pathological problem a little too deep for solution in our present state of knowledge.

It may also be suggested that, notwithstanding the indol differentiation, the bacillus coli commune is now and then confounded with the bacillus typhoides, and even some microbes that live upon decaying vegetable matter in the water of wells, etc., and were never native to the body of man or beast. Therefore the learned bacteriologist who puts this stigma upon the hitherto good name of our little domestic intestinal scavenger may have mistaken some specific pus-making bacillus of foreign origin for the bacillus coli commune.

Till this matter is proved up beyond a peradventure it would be well for the obstetrician to hold fast to the by no means old doctrine, that by far the greater number of if not all the women who suffer infection during the puerperium are the victims of pus-making microbes transported to their vaginæ or uteri by the hand or instruments of the accoucheur or nurse.

However desirable it may be to ease the conscience and mitigate the chagrin of the doctor who is unfortunate enough to have a case of fatal puerperal infection develop under his hand, any doctrine or teaching must be held heretical and pernicious which would cause him for one moment to relax that "eternal vigilance" in securing in the lying-in room, in the parturient woman, in himself, in the nurses, and in the obstetric armamentarium that absolute cleanliness which is the price of safety.

Notes and Queries.

THE PHYSICIAN AS TRADESMAN.—Formerly there were three “learned professions;” then other pursuits made claims to stand on a parity with these, both as professions and as learned; more lately all pursuits have been styled in the vernacular professions, and all their followers professors; and, last of all, comes the period when no pursuits are professions and no men are learned. All occupations become trades and all men tradesmen. A contributor this week of a paper entitled, “The Commercialization of Medicine, or the Physician as Tradesman,” evidently thinks that this last period has been entered upon, at least in this country.

Although we can not accept his position in its entirety as applied at any rate to the Eastern States, there is evidently a considerable measure of truth in his forecast of a hard and unpicturesque reality. The times have changed and are changing; we have changed and are changing with them. It is inevitable, and the newer the country the greater the change. Whether human existence is gaining or losing remains to be seen; but life presents less individualism, less repose of thought or action, less of the picturesque and the mellow. Every one has all kinds of fruit at all seasons, picked before it is ripe, that it may be rushed to the best market by rail or steamship, and cold storage does the rest.

The profession of medicine and the physician have undergone the change along with all else, and must continue to march with the music. We think that commercialization has affected the physician as little in Boston and New England as anywhere in the United States, but it must be granted that our doctor of to-day is no more like his predecessor of fifty years ago than is our modern “merchant” like his predecessor in the palmy days of the old China trade.

Even in the laboratory “business methods” are very desirable, and in the field of practice the doctor without them is heavily handicapped. The practicing physician must know how to handle his contemporary men and women, as they are accustomed to being handled in other relations of life, in order to get patients; and how to “turn off” his clients in a thoroughly business-like fashion, in order to get more than he can properly attend to.

Trade and collectivism have made and will make their mark upon the medical profession; but its days as a profession based upon learning are not quite yet numbered, and the personal equation will still continue to be a large factor in its practice.—*Boston Medical and Surgical Journal*.

NEPHRITIS FOLLOWING FRICTIONS WITH NAPHTHOL.—In the *Revue internationale de médecine et de chirurgie pratiques* for October 25th, there is

an abstract of an article on this subject by M. Baatz which appeared in the *Centralblatt für innere Medicin*. The author relates two cases of nephritis following naphthol frictions for the itch. In the first case, that of a boy nine years old, the nephritis, which was not very pronounced, manifested itself in edema of the legs, the feet, and the scrotum, accompanied with slight albuminuria. Recovery followed very quickly under the influence of a proper diet and baths. In the second case, that of a boy six years old, anasarca and symptoms of broncho-pneumonia were observed when he entered the hospital. The urine, which was brownish in color, contained albumen, hyaline casts, and red blood corpuscles. Notwithstanding the treatment, which was carefully applied as soon as the symptoms appeared, the situation became aggravated and the child died four days after his entrance into the hospital. At the autopsy extensive broncho-pneumonia of the left base and parenchymatous nephritis were found. The author thinks that in both cases nephritis had been provoked by the naphthol frictions. He recalls the fact that similar cases have been observed before by other authors. Kaposi has published an account of a boy who, after friction with naphthol for prurigo, was taken with ischuria, with bloody urine, vomiting, loss of consciousness, and eclampsia which persisted for several days. The child recovered. Lewier has related the case of a man who, after fifteen days of naphthol frictions, was taken with acute nephritis with albuminuria. Finally Frohmüller has observed three cases of naphthol poisoning where the principal symptoms were acute nephritis and attacks of mania.—*New York Medical Journal*.

EXOPHTHALMIC GOITRE CURED BY THYREOIDECTOMY.—Dr. Frederick Peterson desired to put on record a case of exophthalmic goitre that had been cured by thyreoidectomy. The chief points in the case were as follows: The patient was a woman, thirty-four years old, and a native of Sweden. She had consulted him in 1888 for certain symptoms that had been developing for seven years. There had been marked tachycardia and the pulse-rate had been 120 during the several months she had been under treatment. There had been considerable proptosis. The von Graefe symptom had been absent. Tremor of the hands and fingers had been extremely marked. Hyperidrosis and flushing of the cutaneous capillaries had been noticeable. The thyreoid gland had been enlarged, especially in the left side, where the growth had measured three inches in diameter and had been very prominent. The thyreoid tumor on the left side had occasioned pressure and a good deal of subjective distress, so that he had advised the removal of that lobe. At that time the patient had been very miserable, and her work, upon which she had been dependent, had been interfered with, so that she had concluded to accept his advice. She would not go into a hospital here for the purpose, but, as she had intended going to Sweden for the summer, she had waited until then, and the whole of the left lobe had been removed by Dr. Hallen, of Linköping, a year after Dr. Peter-

son had first seen her. During that year the treatment had been with galvanism, digitalis, and the other usual remedies tried *seriatim*, but without amelioration of the symptoms.

Improvement had begun immediately after the operation in 1889. The speaker had seen her very shortly afterward, and there had been diminution of the tremor, the exophthalmia had been lessened, the subjective symptoms had disappeared, and the tachycardia had grown less and less. About a month ago, five years after the thyroidectomy, he had examined her again. There was no proptosis whatever, no tremor, no tachycardia, no thyroid swelling; in fact the patient was well, and had been able to carry on her hard work steadily ever since. Nothing remained of the trouble but a somewhat rapid pulse, which varied from 90 to 100.—*New York Medical Journal*.

ADVICE TO PHYSICIANS.—The following advice, under the head of "How to Succeed," in the November number of the *Woman's Medical Journal*, is quite as applicable to male as it is to female physicians, for whom it was intended:

"Various letters come to us asking methods of establishing one's self in practice. How to begin is the very pertinent question of young women in the profession who are standing, diploma in hand, at the door of their professional life. The question of location is usually decided by many outside influences, but if every thing else is equal it is wise to go where there are other women practicing successfully. They have educated and familiarized the community with women as physicians, and this is a long step gained. A growing town, in a growing part of it, with an office fully equipped, and with it a business-like appearance, will do much toward declaring your intentions to the community. Having done this, call on your brother and sister practitioners, and after due length of time join your local medical society and attend the meetings regularly. This is a point which is frequently overlooked, and 'pity 'tis, 'tis true.' Go to as many meetings as you can; they serve to keep you in touch with the best fellowship of the day; they inspire a healthful rivalry and a spirit of emulation that will augur well for you in the present and future. Whenever you are invited to read a paper, prepare it from your own experience, so far as possible, citing the most approved authorities in support of your position. And, having taken a position and being convinced that it is tenable, hold to it until it is demonstrated fallible.

"People with opinions are always respected. Whether we agree with them or not, it is the physician who writes who makes his reputation, and it is reputation which brings success. I do not mean those who compile from others' work, but I mean those who, in the love of their fellow-men, set down that which they have found to be practicable and good for others to know, who have crystallized their thoughts into writing."—*New York Medical Journal*.

ANECDOTE OF SIR WILLIAM GULL.—Sir George Johnson tells the editor of the British Medical Journal that Sir William Gull, whom he met at Eastbourne shortly before his death, said to him, "You know the true translation of Γράδι σεαντών is, 'Test your urine.'" The editor remarks that it would be interesting to know whether this had been done within a year or two in the case of the late Czar. The following note from *Le Progrès Médical* for November gives an answer which is interesting, if true:

THE CZAR'S ILLNESS.—The medical profession of St. Petersburg, according to *Le Temps*, accuses Professor Zacharin of having neglected to ascertain the state of the late Czar's kidneys after his attack of influenza of last year. The surgeon of the imperial yacht, Polar Star, while the imperial family were cruising last year along the coast of Finland, noticed that the Czar had edema of the face. He secretly secured a specimen of his majesty's urine from a servant, analyzed it, and found evidence of advanced disease of the kidneys. He informed the court physician, Dr. Hirsch, of his discovery, and the latter, having confirmed the diagnosis by his own examination, ordered immediate return to dry land, and residence in a dry climate.—*Boston Medical and Surgical Journal*.

A BON-MOT OF DR. HOLMES.—In the 'forties Dr. Holmes was one of the instructors in what was known as the Tremont Medical School, which gave instruction to quite a large number of students between the lecture terms of the Harvard Medical School. Usually prompt, we were one day surprised by his non-appearance at the beginning of the lecture-hour, but we waited. Finally he entered the room hurriedly, glanced around with a smile, and said, "Gentlemen, I know I am late, but there is a little stranger at my house." And then with an expression such as only Holmes's face could assume, he continued, "Now can any one of you tell me what well-known business firm in Boston he is like?" There was no answer. "He is Little and Brown," said the doctor with a twinkle in his eye.—*Boston Medical and Surgical Journal*.

THE PASTEUR TREATMENT OF HYDROPHOBIA.—A good deal has been said of the tragic death of the late Lieut. Malcolm Stevenson, who had undergone treatment at the Pasteur Institute for the bite of a rabid dog. The authentic facts are that Mr. Stevenson was bitten on June 10th, in India, and his treatment at the Pasteur Institute was commenced twenty-one days afterward, and continued in regular course. The bite was on the right hand on the third phalanx of the fourth finger. He died on July 25th. The mortality after the Pasteur treatment is still 2 to 3 per 1,000 instead of 200 per 1,000.—*British Medical Journal*.

DR. ZACHARIN'S FUTURE.—Dr. Zacharin, the eccentric Russian physician who attended the Czar Alexander III during the greater part of his illness, has not a very cheerful future to look forward to. The present Czar Nicholas is said to be so displeased with Dr. Zacharin's conduct that he has suggested that he confine his practice henceforth to Siberia.

Special Notices.

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THE KEELEY INSTITUTE, Marysville, O., Jan. 20, 1892.

WE call the attention of our readers to the advertisement of the Robinson-Pettet Co., Louisville, Ky., which will be found on another page of this issue. This house was established fifty years ago, and enjoys a widespread reputation as manufacturers of high character. We do not hesitate to endorse their preparations as being all they claim for them.

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THE AMERICAN PRACTITIONER AND NEWS

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

THE PATHOLOGY AND TREATMENT OF PURULENT INFLAMMATION OF THE CONJUNCTIVA.*

BY CRITTENDEN JOYES, M. D.

Assistant in Ophthalmology, University of Louisville.

Though the subject under consideration has been written upon and discussed with such frequency that there is hardly a journal devoted to general medicine that does not have several articles upon it a year, and though many and even most of them are but reproductions one of another, still the importance is so great that time spent in its discussion ought never to be considered ill spent.

The statistics presented by Dr. Ray can not fail to impress every one with the fact that there are a great many people who are blind as a result of this disease, and that the loss of sight could probably have been prevented in a large proportion of these had there been proper prophylaxis and treatment.

Purulent conjunctivitis is an inflammation of the conjunctiva which originates in contagion from virulent secretion, and whose own copious purulent secretion is likewise contagious. This is almost identical with the definition of Fuchs, who says, however, that it originates in contagion from gonorrheal virus. I have left out the words gonorrheal virus, for the investigations of bacteriologists show us that it is not always of a specific nature.

* Read at the June meeting of the Kentucky State Medical Society, 1894.

It is now established beyond reasonable doubt that the disease is developed by direct transfer of virulent matter to the conjunctiva, whether by hand, by linen, or by sponge; from the genito-urinary system or from another eye affected with purulent ophthalmia; from leucorrhea, gonorrhea, or gleet.

Kroner examined ninety-two cases in which the gonococcus of Neisser could be found in sixty-three after careful search. He states that the clinical history was about the same in all of these cases; but where the germ was absent the course was milder and shorter. Weeks found that by far the majority and all the severer forms of his cases of ophthalmia neonatorum were due to gonococci and were contracted during or shortly after birth. The healthy secretions of the lying-in woman do not produce this disease. At least we are justified in believing that they do not, for experiments have been made in which they failed to excite inflammation. Zweifel placed in the eyes of six children the lochial discharge of mothers in whom there had been no syphilis, gonorrhea, or leucorrhea, and five of them escaped without any trouble, while the sixth had diphtheritic inflammation; but it was discovered that the father was in bed in the same room with diphtheria. Piringer states that the infective power of the secretion was weakened by diluting it with one hundred volumes of water. But Noyes says that a secretion which has been diluted with one thousand parts is still active. Piringer found also that drying destroyed the activity, and that the weaker the virulence the longer the period of incubation and milder the attack.

Purulent conjunctivitis presents itself at different ages, and is generally divided into two classes: ophthalmia neonatorum, and ophthalmia adutorum, or gonorrheal. Every practitioner sees cases of vaginal discharge in little girls from two to ten; and occasionally a purulent ophthalmia, not always specific, develops in one of these. So we have three classes of purulent inflammation of the conjunctiva in which the disease is essentially the same. Usually the adult cases are the more severe, but this is not always the case. Therefore it is the purpose of this paper to consider them all under one head, Purulent Conjunctivitis, making reference to an occasional difference in the use of certain drugs in the adult and the infant.

In an eye affected with purulent inflammation the blood-vessels are distended with blood corpuscles; there is great exudation of serum and chemosis due to this exudation into the episcleral tissue. The dis-

charge contains broken-down epithelial cells, granular corpuscles, large numbers of pus cells, and bacteria.

After infection has taken place there is a period of incubation which varies, according to the virulence of the inoculation and the general condition of the patient, anywhere from a few hours to a few days. The first symptoms are reddening and swelling of lids with difficulty in opening them. At first the secretion is watery and contains little or no pus. The conjunctiva, owing to the infiltration, becomes rough and tense. After this the swelling of the lids gradually subsides and the conjunctiva becomes less tense, and at the same time profuse purulent secretion sets in. In the milder cases the bulbar conjunctiva is only slightly involved, but in the severer forms we sometimes have such great chemosis that the cornea is completely hidden. Corneal trouble, when it arises, is due to three factors which are all more or less concerned; pressure of the swollen lids, action of the secretion, and continuity of inflammation. The first intimation of corneal involvement is generally a more or less diffuse haze, and this may be followed by circumscribed areas of denser infiltration, and these in turn break down into ulcers. Owing to the chemosis about the cornea furnishing a gutter for the collection of pus, we are more apt to have marginal than central ulcers.

Since the methods of prophylaxis and the efficacy of the same have been so exhaustively presented in the preceding paper, I will take up merely the treatment of the disease itself. The first and greatest element in the treatment of this affection, whether in the adult or the infant, is scrupulous cleanliness. It may be that once every hour or two will suffice, or perhaps it will be necessary to cleanse every ten or fifteen minutes night and day. Some surgeons prefer boracic acid solutions; some, bichloride of mercury; and some carbolyzed solutions. Whichever of these we may select, it is important that we exhibit great gentleness and care not to denude the cornea of its epithelium, for if we do this we increase the danger to the cornea.

At first, when the swelling of the lids is great and the discharge watery, the application of cold and diligent cleansing furnishes all the treatment that is necessary. Cold reduces the swelling and retards the procreation of the micro-organisms. The best way of applying it is to place a block of ice by the side of the bed and lay pieces of linen about two inches square upon it, and transfer them to the eye of the patient, leaving one on as long as it is cold then replacing it by another. Sometimes this must be kept up constantly, while again only for a half hour

at a time at intervals throughout the day and night. This is generally very agreeable to the patient and furnishes great relief. During my residence in the Manhattan Eye and Ear Hospital, I had charge, under various surgeons, of about thirty cases of purulent ophthalmia. The two solutions which were used most frequently for cleansing were the one to ten thousand bichloride, and the saturated solution of boracic acid; and it seemed to me that in the cases of ophthalmia neonatorum it made no appreciable difference which one was used; but in the adult cases the best results were obtained from the use of the mercurial solution. In solutions of one to five thousand Cohn says it has been proved that it can set up parenchymatous keratitis in a healthy cornea after incision has been made. Therefore, he says, that in purulent ophthalmia, where the resisting power of the cornea is greatly diminished, it is probable that its surface will be injured, and, as this is particularly to be avoided, he advises against the use of strong solutions. There are cases, however, in the adult in which some benefit seems to be derived from the use of stronger solutions, one to two thousand, and even one to one thousand, kept up for a day or two. But as a rule the use of solutions stronger than one to ten thousand is to be deprecated.

Sometimes, in order to relieve pressure and enable us to cleanse properly, it is necessary to perform a canthotomy at the outer angle.

In the second stage of the disease, when the swelling of the lids is reduced and the secretion thicker and more purulent, it is necessary for us to do more than cleanse and apply cold. Here we call in nitrate of silver, which is the best remedy of all for reducing the conjunctival swelling and causing a cessation of the discharge. It is almost universally believed to be of great value when properly used. But here the question arises, what is the proper use of nitrate of silver? And the answers to this are various.

Dr. Montgomery, of Chicago, uses strong solutions, sixty grains and upward, when the secretion becomes thick and purely purulent, and keeps it up until the disease is controlled. He makes no difference between the treatment of the adult and that of the infant. Dr. Noyes, during the same period, brushes a five- or ten-grain solution thoroughly over the conjunctiva, and sometimes leaves a five-grain solution with the nurse to be dropped into the eye three times a day. He uses the mitigated stick when there is a very thick secretion and a papilliform swelling. Meyer, after the purulent nature is once made clear, brushes an eighth-grain solution, and sometimes uses the mitigated stick. Noyes

says a ten-grain solution can be freely applied when there is no croupous exudation and the mitigated stick when there is great development of papillæ. Juler says the best and most effectual treatment in adults consists in the daily application of the solid stick together with frequent cleansing and the constant application of iced carbolized solutions. In infants he uses a four-per-cent solution and washes away the excess. Dr. Gruening says if he were deprived of nitrate of silver he would not know how to treat ophthalmia neonatorum successfully, and he thinks it should be used in a one- or two-per-cent solution. Dr. Andrews says, as a result of his experience, that where the disease was not due to gonorrhea he thought the eyes were injured by silver; but when the disease was gonorrheal silver was invaluable. Weeks placed it near the head of the list of antiseptics, having found that it destroyed the vitality of the staphylococcus pyogenes aureus and typhoid bacillus in four seconds in a ten-per-cent solution, in eight seconds in two-per-cent solution, and in twelve seconds in one-per-cent solution. He thinks it excellent in purulent ophthalmia.

These are fair samples of opinions in regard to the use of silver in purulent ophthalmia. The method with which I am most familiar is brushing a five- or ten-grain solution over the conjunctiva once or twice a day according to indications. I think the silver ought always to be applied by the physician and the effect carefully watched. If the symptoms are aggravated by it, then of course we must discontinue it; but if they improve our remedy has been well chosen.

Sometimes after applying silver we notice no change in the condition of the eye, and then we get improvement from increasing the strength. Silver is not contra-indicated by ulcers of the cornea, but is of use in rendering less necessary the application of cold which is at this time dangerous owing to its depressing effect on the circulation. Vaseline flooded between the lids seems to have a favorable influence on the disease. This is due to its affording some protection to the cornea, and enabling the secretion to flow more freely from the eye.

When corneal trouble arises we treat it according to the rules for independent corneal affections, using atropine or eserine, or both.

When one eye is affected the other should be covered with a Buller's shield, a watch-glass fastened on by means of adhesive plaster. In fastening this on we should leave an opening at the outer canthus for the access of air. This is not practicable in the infant, and the best we can do is to caution the nurse not to allow the child to rub its eyes.

The general health of the patient must be looked after in the treatment, for it is frequently observed that an eye which has been steadily growing worse dates its improvement from the improvement in the general condition.

It is important that we caution the patient and nurse about the contagiousness of the disease, and tell them to destroy all the rags and sponges used in the treatment.

The prognosis is very grave in adults, for even under most favorable circumstances we may expect a large proportion to result in either total or partial loss of vision. Klein reported that out of forty eyes treated by him sixteen became totally blind, nine retained some vision, and five had useful vision, or could have it by an operation, while in ten the cornea escaped. Out of two hundred and fifty eyes treated at Moorfields, thirty were lost entirely, while the cornea was badly damaged in seventy-four. In infants the prognosis is much better, and it is seldom that an eye is lost when treatment is inaugurated before the cornea is involved, and even when it is involved a wonderful improvement frequently takes place owing to the recuperative powers of childhood. And even in the adult the patient comes out frequently with better vision than we would think possible. I have seen one case which pursued a violent course, having a large ulcer in the lower portion of the cornea, together with a general corneal haze, the ulcer going on to perforation, and yet the patient came from the attack with $\frac{2}{3}$ vision. This case, by the way, was one in which the discharge was not checked by bichloride solution of strength varying from one to ten thousand to one to two thousand, nor by ten grains nitrate of silver, but in which it almost ceased after the use of an alum wash for about thirty-six hours. After the acute symptoms have all subsided and the ocular conjunctiva has resumed its normal state, we frequently have left a granular condition of the palpebral portion. The best treatment for this condition is tannin and glycerine, forty grains to the ounce. If this fails to relieve it, sulphate of copper may be tried.

In conclusion, I will say that I believe all cases of purulent conjunctivitis in the adult, with an occasional exception, are benefited by the use of nitrate of silver at some time in the disease. In the infant, however, there are many cases which get well, and many which would probably do so without the aid of silver, and an eye has occasionally been met with which was injured by even a careful use of the caustic. Therefore we must not apply silver just because we have made the diag-

nosis of purulent ophthalmia, but must let the appearance of the conjunctiva and lids and secretion determine whether we shall use it or not.

Peroxide of hydrogen aids us in cleansing the eye, but it exerts no special influence in the disease and leaves the tissues still swollen and boggy. Iodoform at one time had some enthusiastic advocates, but at present it is not used much except when other things have failed, and we look around in desperation for something else to do.

LOUISVILLE.

TWO CASES OF SUPPURATIVE PYELITIS; REMARKS ON DIAGNOSIS AND TREATMENT.*

BY JAMES S. CHENOWETH, M. D.

Two cases of pyelitis recently operated upon present some points of interest which I thought would repay us for a few minutes' consideration.

Case No. 1 was a young man, twenty-nine years of age, operated on six weeks ago. He gave the following history: Was born and raised on a farm, and while never robust had no special illness until after moving to Texas seven years ago, when, getting very much run down from close confinement in an office, he developed a continued fever which lasted two months; after a year's residence in Texas, with continued ill health, he returned to Tennessee and Kentucky. Since that time he has never been perfectly well and strong, but has suffered off and on with headache, backache, and dyspeptic symptoms. Has lost fifteen or twenty pounds in weight in four months; is very despondent, complains of a constant dull frontal headache and pain in his back and legs, pain in stomach, and flatulence after eating. His skin is dry and muddy looking, tongue coated, bowels irregular, pulse 90 and regular, temperature 99.5°: examination of heart and lungs negative.

By the introduction of the stomach tube, and by the examination of the withdrawn contents at intervals of from two to eight hours after a test meal, the stomach was found to be moderately dilated, secretion of acid diminished, and digestion slow, but fairly good for a light meal. Palpation of left kidney region revealed some tenderness extending down over the course of the ureter, but the kidney could not be felt. On the right side there was a very noticeable bulging of the loin and a

*Read before the Louisville Surgical Society, June 11, 1894.

tender, firm, movable mass, seemingly about the size of a normal kidney, but varying from day to day; could be felt rising and falling with each respiration. Daily examinations of the urine revealed the fact that there were intermittent discharges of small quantities of blood and pus with the urine, which in the interval was in this respect practically normal, but at all times contained large quantities of oxalate of lime crystals. The bladder was slightly irritable, requiring him to get up once or twice at night, but held a good quantity of water. No stone could be detected. Urethra very sensitive. Has never had gonorrhea. Temperature taken thrice daily for a week showed an evening rise of from one to three degrees.

As stated, there was in the right loin a movable, sensitive mass, which varied somewhat in size from day to day, moved with respiration, and which could be pushed up under the ribs in the normal situation of the kidney. Coincident with the diminution in the size of this mass was the appearance of pus and blood and oxalate crystals in the urine; the colon lay in front of the tumor.

An operation was advised for the purpose of drainage and of anchoring the kidney to the abdominal wall, and—as I stated to some of the bystanders, if there was any thing certain in kidney surgery—to remove an oxalate of lime stone from the kidney pelvis, as there was every indication of its presence. The kidney was readily exposed by a transverse incision and carefully palpated between the thumb and forefinger, but no stone was found. The introduction of a needle in various directions also gave a negative result. The organ was then drawn into the wound and an incision, admitting the forefinger, made in the convex border. The hemorrhage was not great, and was controlled by the pressure of the finger. The kidney structure seemed healthy, the pelvis was dilated and contained a very small amount of pus (there had been a discharge the day before the operation), but the most careful search failed to reveal a stone. The ureter was pervious. A rubber drain and a strip of gauze were carried well into the kidney pelvis, and a strip of gauze packed under the kidney, and all brought out of the center of the external incision for the double purpose of drainage and causing adhesions which would hold the kidney in its position. Muscles and fasciæ were brought together by buried catgut sutures, the skin by silk-worm gut; gauze removed on the second day and tube and stitches on the sixth. The fistulous opening, which at first drained freely, closed by the fifteenth day.

The highest point of temperature reached was 100.5° on the fourth day, falling to normal at the end of the week. Since that time there has been a slow but steady improvement in the general condition; the urine still shows some oxalate crystals, which are gradually disappearing under a strict diet, nitro-muriatic acid, and lavage of the stomach and bladder.

The sequence of events in this case seems plain. The unusual close confinement of an office and the Texas fever resulted in a derangement of the digestive and assimilative processes, dilated stomach, and oxaluria. Following and dependent upon the oxaluria was the irritation of the whole urinary apparatus and subsequent emaciation, absorption of the perirenal fat, movable, displaced kidney, kinking of the ureter, and pressure on the blood-vessels; a dilated pelvis, which was frequently distended by urinary and septic products, absorption of these, more fever, more dyspepsia, less patient.

Case No. 2 was a woman, aged forty years. Father and mother, two brothers and two sisters, all living and in good health, except mother, who is now under treatment for lupus of the nose. Patient herself had good health as a girl, menstruation regular and painless. She was married nine years ago, had two miscarriages and two children carried to term, one now four years old, the other seventeen months. No history of any inflammatory trouble in the pelvis.

Twenty months ago, or three months before birth of last child, she began to suffer with pain and soreness in the left side, increased frequency of micturition, and swelling of the lower extremities. The swelling soon subsided after the birth of the child, but the trouble in the side increased. For the past eighteen months she has had repeated attacks of pain, with a feeling of fullness in the left side, accompanied by vomiting, rigors, fever, and sweats. These attacks would last sometimes for days, and sometimes for weeks, until as she expressed it, forcibly if not elegantly, the "bile would break inside of her," and she would get easy. She has been under medical treatment the greater part of the time, being treated for dyspepsia and ovarian trouble.

She has constantly lost flesh and strength, and is now the perfect picture of long-standing septic infection. She has retained little or no food for the last two weeks. Respiration rapid, pulse weak and compressible, and beating 130 to the minute. Examination of heart, lungs, and stomach region negative. Uterus normal, no induration or tenderness in ovarian region, but in the anterior vaginal vault the lower

end of the ureter could be felt enlarged and tender. Palpation of right side of abdomen negative. On left side, by deep bimanual palpation, a very tender, soft, semi-fluctuating mass could be felt in region of left kidney. Urine passed, after thorough and repeated irrigation of the bladder with solution of permanganate of potash, still contained a large quantity of thick, greenish, fetid pus. The bladder was free from stone.

Operation on Friday last by a transverse incision, beginning below tip of last rib and carried back for five inches, which readily exposed the kidney. The kidney pelvis was dilated and contained a teacupful of very offensive pus. The kidney structure was softened, thinned out, and, at the point where my incision was made on the convex border, was on the verge of rupture. The ureter was thickened and dilated until it would admit a finger. Irrigation fluid passed into the bladder. Drainage was effected by a large rubber tube and gauze packing, which served to control hemorrhage, and kidney was attached to the abdominal wall by two silk-worm gut sutures.

The patient was in rather a precarious condition for twenty-four hours from the persistence of the nausea and exhaustion, but is now doing nicely. Gauze was removed in thirty-six hours, and the urine is draining freely through the tube. Right kidney seems to be doing its work all right.

The original cause of the trouble in this case I believe to have been the compression of the ureter by the fetal head.

The most noticeable feature in connection with both of these cases is the fact that both of them "had suffered much of many physicians," and that neither of them had gotten that all-important thing to physician and patient alike—a correct diagnosis. Why? Not because these men were ignorant of diagnostic methods, but because they were guilty of that sin, to which we are all so prone, of jumping at conclusions without a thorough and painstaking examination of the case in hand, not only of the organ to which the trouble is referred, but of the whole body from top to toe, with due regard at the same time for the family history.

This custom of snap diagnosis or no diagnosis is a growing evil that we, as surgeons, led on by the fascination of the "exploratory incision," are too often guilty of fostering to our own and patient's hurt.

In these cases the pathological process is usually a complex one, the symptoms often misleading, the kidney lesions very often overlooked.

A diagnosis of pyelitis being made, the treatment should be directed to the removal of the cause where possible, to keeping the bladder in

an aseptic condition by antiseptic irrigations with or without continuous drainage, to flushing the urinary tract from above by the free use of pure or medicated waters, and lastly, in the severer cases (with continued suppuration and evidences of retention of pus and urinary products in the kidney pelvis), by direct drainage.

LOUISVILLE.

THE USE OF NITRATE OF SILVER IN URETHRAL INFLAMMATIONS.

BY J. C. CARRICK, M. D.

In preparing this paper I am aware that I am treading upon ground which has always been considered dangerous, and which as a treatment may appear to you as uncalled for and severe, but as yet I have not seen a single case which has been at all injured by it.

Nitrate of silver some fifteen or twenty years ago was very much used as an astringent injection of the strength of about one-fifteenth grain to the ounce, and with good results. It was, however, supplanted by sulphate of zinc, acetate of lead, and other astringents, on account of the irritability which it seemed to set up in certain urethras. It had, however, its advocates, and was used especially in the so-called abortive treatment of urethritis.

In this country it was advocated principally by Bumstead, who first put his patient in bed and then injected about one dram of sixty grains to the ounce nitrate of silver solution; he then treated his patient with cold applications and diluents. This often brought about good results, the inflammation subsiding in a few days. In some cases strangury and peri-urethral inflammation were set up. Another method was to inject a one-sixth grain of nitrate of silver solution at frequent intervals until the desired effects were produced.

This abortive treatment has gradually fallen into disuse. In acute cases of urethritis to-day it is not employed, except in those cases of prostatic inflammation known as gonorrheal cystitis; in these cases it seems, according to various authorities, to work like a charm. Keys, in speaking of the treatment of posterior urethral inflammations treated by nitrate of silver solution, said: "This has yielded the best results in gonorrheal cystitis, and the more acute the attack the better." He uses five drops, and repeats in from two to eight days. Strength, one half grain or more to the ounce.

By far the greater number of cases to-day in which nitrate of silver is used are those of posterior urethral inflammation where generally a slightly granular condition exists. These may occur either in the membranous or prostatic portion, and are accompanied by various symptoms, such as gleet discharges, pain after micturition, a sense of weight and heaviness in the perineal region; sometimes increased frequency of micturition, and many other unpleasant manifestations. In these cases deep injections are given of two drops or more of nitrate of silver solution, beginning with one grain to the ounce and increasing the strength every two to eight days until the symptoms have disappeared. This will generally happen in from three to fifteen applications.

Ultzmann, of Germany, the father of deep injections instilled into the membranous portion of the urethra. The strength was generally one to three per cent; his syringe, which is the one generally used, consists, as you all know, of a small glass syringe holding about twenty-five drops and a hollow silver sound about seven inches long.

Keys, on the other hand, throws from one to five drops into the center of the prostatic portion; he has a syringe of his own, which has a larger shaft than Ultzmann's, and is made of solid silver; he recommends a solution of from one half grain to sixty to the ounce.

The use of nitrate of silver solution in the anterior urethra is generally applied to cases of circumscribed or localized urethritis, which have been discovered by endoscopic examination; as the folds of the urethra fall together while withdrawing the endoscope, any little areas of congestion, ulcerations, erosions, granular inflammation, engorged blood-vessels, etc., can be seen and touched with the nitrate of silver through the tube by means of the stylet and a piece of cotton. I will also recommend passing a sound into the urethra and feeling with it for points of tenderness, and in case you find any to inject at that point a dram of one grain to the ounce nitrate of silver solution; this can be increased if well borne.

Thus, having considered the various methods and ways now in vogue of treating urethritis, I accordingly determined to begin with an injection of one grain to the ounce solution and run up a grain a day, giving at the same time a mild astringent injection, to be used three times a day. This I did with quite good success, running up in one case as high as ten grains to the ounce, although most cases were cured with from three to seven injections. This seems to show that a certain tol-

erance can be established, and while I do not think that this method of treatment is an abortive one, I certainly think it modifies the intensity of the inflammation.

I will cite a few cases :

CASE 1. J. W., aged nineteen, urethritis of six days' standing; discharge profuse, urethra very much congested. Treatment: Solution of nitrate of silver one grain to the ounce, followed by injection of borax, glycerine, and water. Second day, not much change; used solution of two grains to the ounce. Third day, discharge much less; solution of three grains to the ounce. Fourth day, still less; solution four grains to the ounce. Fifth day, return, no discharge.

CASE 2. W. K., third infection, urethritis of two days' standing, discharge moderate, urethra congested. Treatment: First day injected a solution of nitrate of silver two grains to the ounce, and gave a simple astringent injection; two days later returned, cured. Note, this was evidently a case of simple urethritis.

CASE 3. Urethritis, second infection, ten days' standing; great deal of phimosis; prepuce edematous; profuse purulent discharge; complaining of severe cordee. Treatment: First day, injected two grains to the ounce. Second day, injected solution four grains to the ounce. Third day, injected six grains to the ounce. Fourth day, injected solution of eight grains to the ounce. Fifth day, injected solution of ten grains to the ounce. Up to this time there had been very little change in the amount of discharge or in the character of the micturitions; the swelling, however, had almost disappeared. Sixth day, discharge very slight, no more cordee, no pain on micturition; injected again a solution of ten grains to the ounce; two days returned, cured. Note, this was a very acute case of urethritis, just the case where we would dread most the use of nitrate of silver; mild astringent injections were given in connection with this.

CASE 4. J. H., aged eighteen, second infection, duration eight days; urethritis, with profuse purulent discharge, and considerably congested. Treatment: First visit, injected a solution of one grain to the ounce. Second visit, discharge a little less; injected a solution of two grains to the ounce. Third visit, discharge much less; injected a solution of three grains to the ounce. Patient said discharge had ceased, but examination revealed a drop of pus; injected a solution of four grains to the ounce. Two days after returned, cured; patient discharged, with order to use astringent injections at home.

From these few cases we can draw the following logical conclusions:

1. That nitrate of silver is not as dangerous in acute urethral inflammation as is generally supposed.
2. That by beginning with small doses and increasing daily a tolerance can be established (the same as in chronic cases).
3. That when the discharge becomes very slight, it is better at times to decrease the strength of the nitrate of silver than to increase it.
4. That in cases of gonorrheal cystitis, which are usually acute, good results are obtained by instillation of this drug.
5. That in cases of chronic, deep urethral inflammation, especially those of a granular nature, deep urethral injections are the remedy.
6. Nitrate of silver, as an abortive, should not be used, as in doing this peri-urethral inflammation may be set up, which might cause considerable harm.

LEXINGTON, KY.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, November 2, 1894, Dr. T. S. Bullock, President, in the chair.

Dr. J. M. Ray (Exhibition of Clinical Cases): This case is of interest to me, and I thought I would present the patient to the Society and get the opinion of the members as to the chances from operative interference of some kind.

He is a policeman, fifty-five years of age, and has had this trouble six or seven months. He complains of excessive flow of saliva, and for the last six weeks there has been some difficulty in breathing; swallowing is becoming difficult. He has lost about forty pounds in weight. There is extensive ulceration, involving the lateral wall of pharynx, epiglottis, and base of tongue.

I expressed the opinion that the lesion was an epithelioma, and based the diagnosis upon the length of time it has been present, the age of patient, and the involvement of glands near the angle of jaw, and the local appearance of the growth. It does not look like syphilitic ulceration; it is deep, with raised, irregular, infiltrated edges. Tubercular

ulceration is not very likely to occur in this locality, and I therefore do not know what else it could be. I am unable to remove a piece for microscopic study.

This is the third case of malignant disease in this locality that I have seen in the last three or four years. In looking up the literature on the subject hastily I find that Bosworth says few regions of the body are more exempt. In 548 cases of malignant disease in various localities collected there is not a single one in which this part of the body is involved. Langenbeck found 1 in 230 cases in six years' observation.

About the presence of enlarged glands: The statement has been made that in malignant disease of the interior of the larynx we never find enlargement of the glands about the neck, but if the disease starts extrinsically the glands are early involved.

With reference to the length of life: In malignant disease of the larynx the length of life is about 18 months; when it involves the pharynx it is not so long. In 15 cases reported by Bosworth the length of life was $9\frac{1}{2}$ months; in 17 cases reported by some one else it was $7\frac{1}{2}$ months. The reason for this is that when the pharynx is involved there is interference both with deglutition and respiration. As to the age: Out of 17 cases, 10 were between 50 and 60; 3 were under 50, and 4 between 60 and 80. There were more females than males. In 24 cases collected by Bosworth 17 were females and 7 males.

As to operation, statistics show that all cases operated upon die. The case which I presented to this Society in June, several years ago, died in August of the same year. Dr. Cartledge, who was present at that meeting, suggested that a pharyngotomy might be done and the growth removed. This patient was sixty-five years of age.

Dr. Irwin: This is a very interesting case from the standpoint of the practitioner as well as the surgeon and specialist. The great question is, How will you treat the man? He has before him but a short period of life, and that a very painful one. In the first place, it will not be long before he will be unable to swallow; add to this pain, difficult breathing, and septic fever later, and the man is doomed to a most miserable existence.

While the toxins have not, so far as we know, shown any positive results in carcinomatous growths, at the same time this is a case that would justify its use if it did shorten his life. If by trying this remedy upon a scientific basis it should make his life shorter, it would not be a sin of commission.

Speaking of the duration of the disease, I saw, last June, an epithelioma of the tongue in a man, twenty-eight years of age, that came on about the last of October a year ago. It was removed, but reappeared on the other side, and was removed a second time. Both wounds healed, but septicemia killed the patient. He led a most miserable existence; the pain was intolerable; he could not sleep, could not eat, and the thought of death stared him in the face. It seems to me that I would risk the use of the toxins even if did shorten life.

Dr. Larrabee: I thought possibly it might be acceptable to Dr. Ray to bring in my experience with epithelioma in different situations—undoubted epithelioma, especially that form due to pipe-smoking. I have had some little experience in the use of a remedy which I do not believe the members of this Society have used since Dr. Bolling's death. I have used it in five or six cases, where there was no doubt of the diagnosis, with satisfactory results. One case is now over six years old without a return, and one has been in existence perhaps two years. Another case that I ought to quote also, where there was no doubt of its being epithelioma, has been of ten years' standing. In these cases the South American milk weed was used. I do not know how it could be used in this case, whether there would be any injury in putting the paste down the throat. I do not know whether its internal administration at the same time would be objectionable. It corrects the formation of cancer cells, and restores a healthy granulating surface in five or six weeks.

Dr. Dabney: I have very little to say. I think it is the general opinion of the Society that the case will not admit of operation.

In lieu of the essay Dr. William Bailey gave an account of the recent meeting of the American Public Health Association. The speaker said:

I have no essay to read, but thought I might interest you by giving some account of my visit to Montreal. To me it was a visit of very great interest for several reasons. I was delighted with what I found in Canada. It is an old country, and much money has accumulated there. The public institutions of Montreal have been well cared for. They have a hospital which is not surpassed on the continent, a hospital costing more than a million dollars; and every thing that money can buy is there. McGill University had two donations of nearly half a million dollars each, and it is equipped as an institution only can be done with an abundance of money. Both Montreal and Quebec are

decidedly French. You will remember that in the cessation of hostilities between England and France, when France gave up Canada to England, it was on condition that the people be allowed to retain the French language, and they have practically done so up to to-day. French, in Montreal and Quebec, is spoken more than English.

In regard to the Public Health Association, there were a few questions that attracted great attention. In the first place I want to mention water supply as occupying considerable time of the Association. A committee for the present year, with Major Smart of the United States Army for its chairman, proposes to do work that I think will be very valuable. He will engage the assistance of all the prominent laboratories in the country, with McGill University as the originator of the movement; the work will be divided between these laboratories, and a study of water bacteria will be made such as has never been done in this country or perhaps in the world before. There is at present great confusion in regard to the water bacteria, and they propose to work this out to some successful issue during the present year; and when the Association meets again I think we will have a report from this committee on water bacteria that will be exceedingly valuable.

In the second place, in regard to water contamination was demonstrated the surprising fact that water can be sand-filtered and almost any water made potable and safe to be used. It was shown at the Lawrence Station in Massachusetts that about 99 per cent of bacteria can be taken out of water by sand filtration, and that it is within the reach of most cities to filter the entire water supply without very great expense, that filter being about five and one half feet deep and only requiring the replacing of the surface occasionally. Prominently was presented this fact, that the efficiency of filtration is really accomplished by what was heretofore thought to be a detriment to the filters; that is, the accumulation of filth upon the surface of the filters is the part that does the work in the destruction of germs. A filter is not so efficient when it is new as it is after there are certain deposits of germs upon it. In former years we were in the habit of saying, if the filter filters the water, what is going to clean the filter. But it is the very filth of the filter upon its top layers that does the filtration.

At the experiment station they have made experiments with cultures of various germs, and these show that by sand filtration the water is practically relieved, and that an acre reservoir will filter about one million gallons of water per day, consequently cities of moderate size

can have filters large enough to filter their entire water supply. We have an invitation to stop at Davenport, Ia., on our way to Denver next year and witness this system in practical operation. I think there is in the sand filtration of water a means of giving pure water to cities that they could not get otherwise.

Another question was the hygiene of schools, the position of children, and the arrangement of light and desks; and the point was made that we are now fitting the child to the desk instead of the desk to the child.

Briefly I want to allude to the quarantine of Canada. Quarantine, you know, was originally a detention of forty days, a great inconvenience to the people and injury to commerce. At the present day quarantine is not so much a quarantine of detention as it is a quarantine of disinfection. It is amazing how soon a vessel can be put in good condition after it has been infected by disease. They rarely detain a vessel over three days, and it is necessary to retain the people only the incubative period of the disease which is on board. I want to speak very briefly of the quarantine station for the Canadas at Grosse Isle. At the close of our Association on Friday the authorities furnished us a steamer taking 400 of us down the St. Lawrence to the station below Quebec, which is the main station for all vessels coming to the Canadas. This is thirty miles below Quebec, the river at that point being six or eight miles wide. The island contains about seven hundred acres, being about half a mile wide and perhaps two miles long. It is about two miles from the northern shore and perhaps five or six from the southern, and is a mile away from the roadway, so that vessels can be taken in and anchored out of the way of vessels that are passing up and down the St. Lawrence. The equipment for boarding and inspection is admirable. The Dominion has put, ready for expenditure, about three hundred thousand dollars on this quarantine. The vessels are boarded and, if found to be infected with any contagious disease, are brought in and anchored. They have on this island abundant preparations for detention, hospital purposes, and disinfection. The buildings for detention purposes are arranged according to the passage, and the expense of detaining passengers must be borne by the transportation line.

In regard to the plant itself, it is an admirable one. The disinfection is by superheated steam, by bichloride solutions, and and by sulphur. Passing into this station at one side there is no way of getting through to the other side by which they may depart except by a method

of cleansing. The articles of clothing and baggage are disinfected by steam, and the capacity of the plant is very large. There are two large cylinders that are about eight and one half feet in diameter and twenty-five feet long. An arrangement is made by which every thing may be placed in wire trunks or baskets, and each man has absolute control of his own belongings. The iron trunks are packed in cars and run directly into these cylinders. Steam is then turned on and by means of exhaustion at the same time pressure is made of an atmosphere. To show that the heat permeates every thing an ingenious device is made by which a thermometer placed in the middle of the baggage rings a bell when the steam rises to a certain point. By this means it is submitted to this heat for about thirty minutes, and by a very beautiful device there is a permanent record made of the amount of steam used and the length of time the articles were exposed to it. These diagrams are filed, and by reference to them you can see for every vessel disinfected the amount of steam and the length of time. While the clothing is being disinfected in this way other articles that would be injured by the steam are submitted to the bichloride solutions or sulphur. While his clothing is being disinfected in this way the man himself is being put through the disinfecting process. There is no way for him to get through, except through the bath. After the man and his belongings pass through this he is perfectly safe, unless he has taken into his system the germs of the disease; and if he has been exposed he is detained to see whether or not at the specified time he will develop the disease to which he has been exposed. We have had very great suspicion heretofore that the northern borders of our States were liable to danger from the Canadas; but after making an inspection of this plant I do not believe that the country is better protected from infectious diseases anywhere on this continent than at the quarantine on the St. Lawrence, and besides that at New Orleans, and possibly at New York, there is no plant comparable to it.

DISCUSSION.

Dr. Irwin: I arise mainly to commend Dr. Bailey's remarks, which were interesting, on the subject of quarantine, and also on the filtration of water. That recalls to mind an observation which corresponds exactly with what Dr. Bailey says in regard to purification of water by the germs of the water itself. Before the water bacteria were so much talked about, before the dangerous bacteria were isolated, and before

the days of steam, transatlantic travelers recognized a peculiar process of purification of water. At that time it took from fifty to ninety days to cross the Atlantic; sometimes it took as long as six months, depending upon the winds. During all this time passengers had no way of getting a fresh supply of water. After fresh water was taken on for the first three weeks of the passage those who drank it were not made sick; during the second three weeks nearly all of the passengers who drank of the water were made sick; many of them had a recurrence of seasickness in the form of a choleraic diarrhea, and some of them died. The ship-owners investigated the matter, and found that on the ships which carried a large supply of water and were detained at sea from four to six months, and the water was allowed to become six weeks old before being used, the passengers were not sickened. The owners then filled their ship's tanks with water six weeks or longer before sending them to sea, which prevented much sickness and death. Dr. Bailey has given us some explanation of the auto-purification of water.

While this question of pure water is being discussed it would be well to call to mind the experiment of Von Leibrich upon impure water, showing how people could take it and yet not contract disease. Leibrich selected water from the dirtiest sewer around Munich, where the drippings from privy vaults, slaughter houses, etc., were carried, and induced two of his hospital patients suffering from dilatation of the stomach to take it. Both patients gained in weight, and their condition was very much improved by it. He also took a quart of it daily himself for several days and had no trouble. There must be something more than the oxidation of the running stream to account for the purification of water. In cases where infection takes place there must be some abrasion of the mucous membrane.

Dr. Cecil: I was very much interested in Dr. Bailey's report. Just now, at the college with which I am connected, we are considering the infectious diseases, and, as you know, students have the habit of asking some hard questions. Dr. Bailey's remarks bring to mind two questions which were asked me. One was, "If cholera was prevailing in Cincinnati and the excreta of these patients were emptied into the river, would Louisville be in danger?" The other was, "Can ordinary bacteria be filtered out by sand?" To the first question I answered that it was a common belief that running water purified itself in a certain distance. I believe there is something in what Dr. Bailey says to confirm this; that is, if the filth layer forms the effective part of a sand filter,

would not that same layer of filth on the bottom of the river form the same sort of protection, in a certain degree, that we get from a sand filter? I answered the question in regard to the sand filter, that I did not believe germs would be filtered out by any ordinary sand filter; for instance, that well-water infected with typhoid germs would be so purified as to make it safely potable.

Dr. Larrabee: I think that in a city like this, where we have a river which during four months of the year is practically a sewer, and where no attempt is made to filter the water, the idea that sand filtration is efficient should be spread broadcast, and the people should have the benefit of it. When the reservoir was cleaned out we were having a dissemination of typhoid fever. After that cleaning out of the filth, which was dark, viscid, and decidedly foul-smelling, I think every doctor will say that there has been a very marked less prevalence of typhoid fever.

It is certainly interesting to know that we are protected to such an extent on the northern border from the fact that in the past history of cholera epidemics, notably the first, they have come through Canada. It is notable, too, that in that city, where such great efforts have been made at quarantine regulations, they should have had a million dollars expense and several thousand deaths from smallpox. I think that we have on Swineburne Island just about as good regulations and all the appliances which Dr. Bailey has alluded to.

I am very much obliged to Dr. Irwin for calling attention to a fact which I have known all my life, and making application of it. I remember, as a boy, having witnessed these things without any explanation being made of them at the time. I remember distinctly a ship coming in, and the statement of the sailors that some water left over had at one time been ropy and then after a time had become limpid and clear.

In regard to running water, I think the statement has been made that in experiments on the Danube the bacteria of disease are not purified out in seven and a half miles, because it has been shown that disease was contracted after the infected water had run ten miles. It is essential that the water must run over something of a break. The point is the oxidation. If in that length of stream there are many breaks, then the water is purified. But the passage of water along a stream at the rate of four miles an hour is not sufficient unless there is some oxidation which we know occurs at the falls.

As regards the adjustment of desks for the prevention of myopia, I think the German people have come to the conclusion that it is not so much the position of the child as the letters they have to look at, the German text being of all others the hardest on the eyes.

Dr. Dabney: I was interested in Dr. Bailey's remarks, and also Dr. Larrabee's, in regard to the purification of water in running streams. My impression was that this water was in large measure purified. The only book on hygiene that I have looked at lately is Rohé; and I think I am correct in stating that he holds that in a certain time running water is purified. In the latest edition of his work he is still of this opinion, and he gives the rate of flow and number of miles. My recollection is that running seven and a half miles is sufficient.

Another question that interested me was school hygiene. I believe Dr. Bailey stated that the Canadian Government exercised some control in this matter. This is the case in some of the countries in Europe, notably in Switzerland. It was found that a bad position of a child's desk and an ill-adjusted seat produced among other evils a tendency to myopia. This resulted partly from the child's being brought too close to its work, and partly from the stooped position over the desk. These conditions are apt to elongate the comparatively soft tissues of the child's eye and thus to produce myopia, the nearness of the object increasing the compression of the lateral muscles of the eye, and the bent-over posture interfering with the ocular circulation.

Dr. Bailey (closing the discussion): In answer to Dr. Irwin, I would say that there are bacteria and bacteria. While the bacteria of ordinary filth may not generate disease, yet this does not prove that if this filthy water was contaminated by the germs of a specific disease that this disease would not develop. This same water impregnated with typhoid bacilli would not be safe. It is to get at these disease-producing germs and to have a better knowledge of those which do not produce disease that this investigation was instituted.

Dr. Bailey: When I left the Society at Dr. Wilson's house two weeks ago, ten minutes after I got home I was called to a case of labor. There was nothing abnormal in the labor except it was the first and only time in my life that I thought a woman in labor was in danger from chloroform. Although given moderately, she quit breathing, and I practiced artificial respiration. Delivery was accomplished at three o'clock the next morning. I thought myself surgically clean, and very little digi-

tal examination was done; I did not even introduce my finger into the vagina for removal of the after-birth. Twelve hours after labor the woman had rigors, and has continued from that time to this with a temperature of 104° , pulse of 120, with repeated rigors, perspiration, and great thirst. There has not been a particle of peritonitis in the case, and no interference with the lochial discharge. Examination does not show any disorder of the uterine appendages. The nurse was recognized as one who had been nursing a case that was somewhat notorious for its septic condition. When ready to leave the patient she asked what time she should give a douche. I replied that she was to keep out—to wash the external parts with bichloride solution if the discharge became offensive. I understand, since that, the woman received three douches before twenty-four hours, notwithstanding my protest to the nurse; the patient, thinking her comfort would be promoted, insisted that it be done. The interesting point to me is, that such evidence of sepsis can come on in a lying-in woman without any involvement, so far as I can tell, of the uterus or its appendages.

Dr. Larrabee: I think that in every case, if we investigate, there is a very patent cause. In regard to the negative answers made by so many gentlemen when asked if there was any laceration, I would say I do not believe there ever was a case of labor at full term without laceration of some parts. I have long thought that it is not necessary to introduce the infected hand into the uterus, but that the manipulation of the external parts would be sufficient. I recognize that every obstetrical case is a surgical case. I have taken pains to examine every case lately that I have delivered, and I have found in all some abrasion or solution of continuity about the fourchette or the posterior commissure.

In regard to resuscitation from chloroform, I will simply say that it would have been the easiest thing in the world to slip the finger out of the vagina into the rectum, and the thing would be done. It has been shown that wherever this has been done promptly an immediate respiratory effort is made.

Dr. Irwin: It would be very interesting to know whether or not the nurse visited this patient before delivery. It is a very common thing for multiparæ to have hemorrhoids or abrasions about the anus, and it is possible that the poison may have gotten into the system in this way. Another remarkable thing is septic fever setting in within twelve hours after delivery. The nurse must have waited at least an hour after delivery before she gave the douche, and that would leave eleven hours

for infection to develop. Formerly fever was observed to come on one, two, or three days after delivery. The fever coming on so quickly must have some other explanation.

Dr. Ray: I noticed an article a few years ago, by an English writer, in which he reported a number of cases of septic infection after child-birth, in which a certain nurse was in care of the cases, and he found that she had a suppurative otitis, and she had infected the cases with this discharge.

JOHN L. HOWARD, M.D., *Secretary.*

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

The Medical Profession and Temperance; The Chirological Society; New Buildings at the Royal Free Hospital; A New Proposal; Watercress and Typhoid Epidemics in Britain; A Munificent Offer; Professor Clifford-Allbutt on Nerves; The Jenner Relics.

An instructive paper by Dr. Snodgrass, of Glasgow University, has been published, the subject being "The Attitude of the Medical Profession Toward the Temperance Cause." The author maintains that medical practitioners should be themselves strictly abstemious, as at any moment a case may arise requiring a well-balanced judgment, the utmost delicacy of touch, the greatest fertility of resource, and the need of prompt and effective action. He also thinks that the general tendency of medicine is in favor of temperance, and that the good results now being gained in all fields of medicine and surgery by abstainers in theory and practice will tend to a more limited administration of stimulants.

A strange case recently occurred at Colchester: a woman was certified by the medical attendant to be dead. The husband, however, refused to believe this, and declared she was only in a trance. After the doctor left the house he refused to allow any one to touch the body. The police were informed of the case, and one night entered the house and found the husband in bed asleep, with the dead body of his wife beside him. Roused and asked why he had not arranged for the funeral, he replied, "She is not dead, she will be all right soon." The sanitary authorities eventually intervened.

It is stated that a pupil of M. Pasteur has discovered a means of preventing catarrhal fever, by inoculating the patient with attenuated cholera virus.

The president of the Chirological Society has discovered a new use for chiromancy. In a lecture on what appears to be the influence of chiromancy on accidents, it is alleged that, after examining twenty-five broken legs at St. Thomas' Hospital, he felt fairly certain of the sign in the hand telling of the accident. If, therefore, a person has got the requisite mark in his hand it would appear to be useless for him to attempt avoiding being run down by a hansom and having his leg broken.

The Lord Mayor and the Lady Mayoress have visited the Royal Free Hospital and inspected the new building, which will not, however, be formally opened for some time. Its cost, including the construction of a laundry and the installation of a thorough system of drainage, has been about £26,000. The Lord Mayor pointed out how the hospital benefited the sick poor, who were received without letters of recommendation, their poverty and suffering being the only passports required. Relief is afforded annually to over 25,000 patients, and the yearly expenditure is about £10,000, toward which the hospital has only an assured income of about £3,000. The institution being located in a poor and densely populated district is almost unknown to wealthy persons.

One of the latest ideas of the higher education is a proposal to insist on butchers and fishmongers passing a compulsory examination in the use of the microscope. The movers argue that if they were expert with that instrument they would be able to detect any dangerous microbes in the various comestibles sold by them. Should Parliament ever give the idea legislative sanction "microscopically examined" would become the password for a successful butcher or fishmonger.

The Medical Officer of Health to the parish of Lambeth has been drawing attention to the connection between watercress and typhoid fever, diphtheria, and other ailments. His attention was first attracted by several cases of typhoid which had occurred in his district after the victims had eaten some watercress. He traced the plants to the place of their growth. The watercress beds were situated on the outskirts of London, and occupy a superficial area of twenty to twenty-five thousand square yards in extent. Through the length and breadth of the farm, which is terraced and subdivided into sectional beds, a gentle current is maintained through the steady inpour of a stream presenting the appearance of water that had traversed a peaty soil. The stream enters the beds lying at the highest level, and finally empties itself into a wayside stream. Dr. Verdon took a sample of water from the stream, at the upper beds, where the foliage was thickest and the growth most luxuriant. Upon analysis the fluid presented all the chemical characteristics of liquid sewage, containing innumerable colonies of micrococci and bacteria, the results leading Dr. Verdon to believe that the connection between sewage and watercress is a prevalent one, and that many cases of typhoid fever, diphtheria, and other diseases of obscure source derive their origin from the noxious elements of sewage that must at times be ingested when this green stuff is eaten.

Dr. Charles Creighton has made a success with his work, "The History of Epidemics in Britain." He thinks the history of fever is particularly a chapter in industrial history. As surely as the purchasing power of the poorer classes was reduced fevers began to become epidemic, and, on the other hand, a decided decline in their virulence is noticed with the general rise of British prosperity from 1715.

At the meeting of the Metropolitan Asylums Board a recommendation of the General Purposes Committee was discussed with regard to the offer of the Royal College of Physicians and Surgeons to carry on the bacteriological investigation of cases of diphtheria admitted into the hospitals of the Board for a period of six months, at a cost of £375, it being understood that this sum should include an examination of and a report on a daily average of twenty cases.

The Worshipful Company of Goldsmiths have decided to make a grant of £1,000 for the purpose of prosecuting research work in connection with the antitoxin treatment of diphtheria, with which if possible they desire to combine the supply of serum for use among the poorer classes of the community. In accordance with the desire of the company the Laboratories Committee of the Royal College of Physicians and Surgeons has undertaken the administration of this grant, "gladly availing themselves of such a liberal offer to provide for the furtherance of a work the importance of which can not be overestimated, and which at the same time affords them additional facilities for fulfilling the object for which the laboratories were established, namely, the carrying out of scientific researches for the benefit not only of the medical profession, but also of those who come under their care."

Professor Clifford-Allbutt, Regius Professor of Medicine at Cambridge University, in a lecture on Nerves and Modern Life, said that official returns failed to prove that insanity was increasing in the classes of persons most likely to be subjected to mental strain; on the other hand, insanity appeared to be more prevalent among the class of agricultural laborers, who, ill fed, married within a narrow circle, and from out of whose class the most intelligent gravitated to the large cities. The Professor takes a most optimistic view of the future development of the English race, as physically the young of both sexes were in athletic aptitude a great advance on the young of thirty or forty years ago. The talk of decadence he spoke of as "wild absurdity."

The Jenner relics recently on show at King's College are to be put up to auction shortly. They include the diploma, charters, and addresses which the great doctor received, as well as a considerable number of manuscripts and autograph letters.

A warrant for a new Royal Commission on Tuberculosis has been issued, and the commissioners will at once commence their labors.

LONDON, November, 1894.

Abstracts and Selections.

TUBERCULAR JOINT DISEASE.—The usually accepted explanation of atrophy is that it is due to a reflex action through the trophic centers in the anterior horns of the spinal cord. But why does the atrophy affect certain muscles earlier and more than others? Hilton has pointed out that the same nerves which supply any joint supply also the muscles acting on that joint. In this way he explains the unconscious fixation of a diseased joint, which always occurs, and to which I have already referred. In the same manner he explains the flexion that usually takes place (knee and elbow) by the greater power of the flexors over the extensors. But he does not explain the atrophy. Ferrier does this by telling us that extensor muscles are always earlier and more quickly atrophied than the flexors, because they are the weaker. "The vitality of the extensor centers and nerves is the first to become exhausted by any condition tending to lower the vitality of the nerve centers and nerves in general."

Charcot has shown that muscular atrophy from disease of a joint is not the same as that from want of use, the latter being a fatty degeneration, which the former is not. He was of opinion that nerve irritation alone is capable of determining rapid and early atrophy of muscles, and that the diseased joint irritation does so markedly, because its irritation is continuous. He points out also that atrophy started by joint disease is apt to persist and to cause general atrophy of the limb (to which I have already referred). In the *British Medical Journal* there are references to investigations made by German and French observers, who found a simple degeneration in the atrophied muscles connected with joint disease. The muscles "were obviously atrophied and of a paler color than those on the other side, and they had lost their firmness and elasticity." The microscope showed "no trace of degeneration," but the "fibers were considerably smaller than they should be." This, it appears to me, points to what I have already suggested in my paper on Bier's Method of Treating Tubercular Joints by Conjestion, viz., that the reflex action, acting through the trophic centers in the anterior horns of the cord, causes a contraction of the arteries. It seems natural to suppose that diminution in the size and power of a muscle should be due to a diminished blood supply; and if the object, so to speak, of a reflex action is to cause atrophy of a muscle, surely the quickest and surest way would be to shut off the blood supply. Then one must remember that though the atrophy begins in certain muscles, it ultimately extends to the whole limb and tends to persist.

Muscular atrophy can not be due to muscular spasm in the cases we are considering, because the muscles affected with spasm are not those most

atrophied; for example, in the case of the knee the hamstrings are most contracted and the quadriceps is most atrophied. Again, this theory will not explain the atrophy of a whole limb, muscles, bone, and all.

Another explanation has been offered of the muscular atrophy, in tubercular joint disease; for instance, of the deltoid in shoulder and the quadriceps extensor in knee affections, viz., that the tubercle bacilli enter the muscular substance from the subjacent joint and cause a low form of inflammatory process which produces the atrophy. No proof of this has, however, been adduced; indeed, as we have already seen, the atrophy has been proved to be a simple one, unconnected with any degenerative or other change in the substance of the muscles themselves.

At the same time one must admit that it is very likely that the muscular substance is tubercular in some way, for it has been demonstrated that muscle from tubercular animals, although it may seem perfectly sound and good, is capable of affecting guinea pigs with tuberculosis.

In what way is the apparently healthy muscle infective? Does it contain spores? Are bacilli derived from the blood and lymph vessels? How do the lower animals get their tuberculosis? Why has muscle tubercle not been observed in man? These are questions that suggest themselves, but can not of course be discussed in this paper.—*Mr. A. G. Miller, in the Edinburgh Medical Journal.*

THE PRESENT POSITION OF THE LICHEN QUESTION.—This was one of the subjects submitted to the Dermatological Section of the International Congress in Rome, and the opinions expressed thereon by two of the speakers have come under our notice. Mr. Malcolm Morris, after an exhaustive review of the several statements made by authors of eminence since Willan's time, showing the confusion which even now reigns as to what is and what is not to be regarded as lichen, thus formulates his own conclusions as a contribution to the settlement of the question. (1) Lichen is not a disease, but a type of lesion. (2) The term should be reserved for the clinical entity described by Erasmus Wilson under the name of lichen planus, which is the same as Hebra's lichen ruber. (3) The affection described by Kaposi under the name of lichen ruber acuminatus is identical with that described by Devergie and Besnier as pityriasis rubra pilaris. (4) Other forms of lichen—obtusus, hypertrophicus, verrucosus, etc.—are variants of the typical form, the Hebra-Wilson typical lichen planus. (5) The group of symptoms to which the name of lichen planus is applied is probably caused by a variety of factors, but at present we are almost entirely in the dark as to its pathogenesis. (Med. Press and Circular, June 27, 1894.) Neisser, again, while he agrees with much of what has been said by Malcolm Morris, holds that, (1) Lichen ruber appears in two principal forms, which are to be distinguished as lichen ruber planus (Wilson) and lichen ruber acuminatus. All other eruptive forms described under different names are modifications of this chief type. (2) Pityriasis ruber (Devergie-Besnier) is a

disease *sui generis* and a keratinosis, that is, a disease with essential anomalies of keratinization of an acquired character. At the same time he does not strictly adhere to the description of lichen ruber acuminatus given by Hebra, senior, nor to that provided by Kaposi, since he thinks that the two authors last named referred to entirely distinct diseases, the sole common element being the acuminate form of the lesions. It would thus appear that for some time to come many various opinions will continue to be held as to the constitution of the lichen family.—*Separat-Abdruck aus dem Archiv für Derm. und Syph.*; *Edinburgh Medical Journal*.

TRICHOTILLOMANIA.—Under this term a peculiar pruriginous condition has been described by Hallopeau, the characteristics of which he thus summarizes: (1) There exists, as described by him in 1889, a diseased condition constituted by intense pruriginous sensations, becoming exaggerated at intervals and affecting the hairy parts of the body. (2) This is accompanied by a morbid impulse, which induces the patients to seek relief by tearing out the hairs on the regions where these grow. The malady consequently deserves the name of trichotillomania, from *τρίλλομαι*, meaning "I pull out." (3) Neither the hairs nor the skin exhibit any alterations appreciable to the naked eye. To the microscope the hairs appear equally intact: a certain number burrow under the epidermis. (4) This is not a variety of prurigo, for the eruptions peculiar to that disease are wholly absent. (5) The complaint is of very prolonged duration, and very probably incurable. The treatment which seems best to alleviate is isolation of the itching parts, either by aid of protective varnishes, or by envelopment in india-rubber coverings. A case of this peculiar disease is recorded by Hallopeau, as affecting a man of thirty-five, of a robust constitution, but an alcoholic, and exhibiting a gloomy and sad expression. In his case, though all the hairy parts were the seat of paroxysms of itching, the axillæ and pubis showed the most pronounced alterations, and indeed were nearly quite denuded of hair. The pruriginous sensations compelled him to pluck out the hairs, and on the head he kept the hair cut extremely short. On the back and lower limbs were brown stains, apparently left by eruptions due to scratching. A mentholated balsam and india-rubber covering led to some relief in his case.—*Annales de Dermatologie et de Syphilographie*, *Edinburgh Medical Journal*

THE TREATMENT OF DIPHTHERIA.—Leige (*Therap. Monatshefte*, July, 1894,) gives an account of an epidemic of diphtheria which broke out in his practice. The cases were very severe in nature, and various circumstances rendered a careful treatment with repeated local applications (pyoktanin) impossible. The author at first resorted to various measures, but with little success, and of the first forty-one cases four succeeded. Thereafter he employed liquor ferri perchloridi, which only required an application twice a day, and this was the only treatment adopted during the onset in

the remaining thirty-seven cases. Of these patients only one died, a boy who was affected with severe glandular inflammation. In no case, however, not even the latter, did the affection spread to the larynx. As regards the painting of the tonsils, an accidental contact with healthy mucous membrane does no harm, but may render the area less susceptible, and thus check the spread of the malady. Usually the patient vomits once, thereby ejecting some of the liquid, which may have run down the esophagus. Three or four applications, sometimes even one, seemed to check the virulence of the disease. The treatment was usually followed by the internal administrations of solution. An extension to the nose was disregarded. In view of the remarkable success achieved by the author, he regards perchloride of iron, used as described, as almost a specific.—*British Medical Journal*.

TORSION FOR RECTAL INCONTINENCE.—A recent paper of Dr. Gerster on this subject is interesting as furnishing additional information respecting the method reported by Gersuny, of Vienna, for the treatment of rectal incontinence described in detail in a previous report. The incontinence may be due to congenital absence of the sphincter ani, to paralysis of the sphincter from spinal lesions, or surgical injuries due to traumatism or operation. Gerster has used torsion with success to relieve incontinence. He rotates the free end of the gut around its own axis so as to arrange the folds of mucous membrane in spirals. The twisted gut is then sutured to the edges of the external wound. The amount of torsion is gauged by the amount of resistance felt by the index finger on introduction. He did not in two cases make more than one complete twist, but more than one revolution might be required when the freed end of the rectum was long, that is, when five to six inches had been excised and the end drawn down. If not twisted at once, the operation of torsion must be delayed till the rectum is fixed in a mass of granulations to the surrounding soft parts. It is then dissected clear for two or three inches, and twisted till the necessary resistance is obtained. Which method is preferable is not yet known. Gerster has never performed torsion immediately after extirpation, only after dissecting out the rectum, the proximal end when the dissection ended being fixed firmly when torsion was made.—*Boston Medical and Surgical Journal*.

TOLYSAL.—Bothe (*Münch. Med. Woch.*, August 7, 1894,) relates his experience with this agent as an anodyne. It is a derivative of tolypyrin. The author has used it in the insane, in the headache of the neurasthenical and hysterical, as also in that of organic brain disease. In neurasthenical headache he has found it very useful, and often when antipyrin was without effect. In such cases, with headache during the day and sleeplessness at night, it was very efficient. The hysterical headache was sometimes influenced and sometimes not. In one case of true migraine it promptly cut short the attack, but in another case it was useless. In the headache of

organic brain disease, of bone disease, or of old rheumatism, it was without effect. On the insomnia of the insane, without excitement, it was also of service. The dose is from $1\frac{1}{4}$ to 2 grains, mostly the latter, 1 grain being generally insufficient. It has a disagreeable taste, but is readily taken in hot soup or beer. In the empty stomach it may produce nausea. Vertigo was sometimes noted, but it does not occur if the recumbent position is maintained. The author says that tolusal is deserving of further investigation.—*British Medical Journal*.

THIOFORM.—Schmid (*Therap. Monat.*, April, 1894, quoted by *Deut. Med. Zeit.*, June, 1894), after having tried thioform in the treatment of burns and as an application to leg ulcers, holds that his results justify the statement that this drug is an admirable application, since it is non-toxic, easily managed, and produces no after-effects, and since it has a special quality of hastening cicatrization, even when large surfaces are granulating. Hoffmann, writing on the same topic, holds that this drug is equaled in healing power by no other therapeutic agent. Ulcers, burns, abscesses, even chancroids, yield rapidly under its use. It is absolutely non-toxic, even when used in large quantities. It is hemostatic, locally anesthetic, so much so that the use of cocaine is often superfluous. It so much lessens wound secretion that drainage is unnecessary. In addition to these many advantages the drug is odorless and exercises a powerful deodorizing effect on foul secretions.—*Therapeutic Gazette*.

ACTION OF TRIONAL.—Dr. Bakofen, in his Inaugural Dissertation, gives an account of certain experiments on animals which he carried out with trional at a time when the clinical effects of this drug were not so well known as they are now. From his observations he concluded that trional acts much more quickly than sulphonal; that the sleep produced by it lasts about an hour longer, and that the animals did not become habituated to it. Only by doses which, in comparison with the sleep-producing dose in man, and also in relation to the body-weight of the animal, were enormous, and which, besides, were given continuously or with only short interruptions, was it possible to poison the animals. In the kidneys, as in the other organs, no change was found. Hematoporphyrinuria was never observed. *The Lancet*.

NON-OPERATIVE TREATMENT OF METATARSALGIA.—Dr. V. P. Gibney, of New York, read a paper with this title. He offered as a substitute for incision of the distal end of the fourth metatarsal bone or the branch of the peroneal nerve, a boot constructed on a Spanish last, with a heel that was a combination of an English and a French heel. The boot thus built transferred the weight from the ball of the foot to the plantar region just back of the ball of the foot to the heel and to that portion of the shank just anterior to the heel. The chief point that he insisted on was a snug fit around

the instep shank and a rather loose toe portion. The boot had been made by an orthopedic shoemaker under his direct supervision, but could be easily imitated. A number of successful cases were reported.—*New York Medical Journal*.

MYXEDEMA AND THYROID EXTRACT.—Crary, of New York, writes on this topic in the American Journal of the Medical Sciences for April, 1894, and concludes that the effects of thyroid administration may be summed up as follows: Increased metabolism shown by, (1) Elevation of temperature; (2) increased appetite with more complete absorption of nitrogenous foods; (3) loss of weight, with nitrogen excreted in excess of that taken in the food; (4) growth of skeleton in the very young; (5) marked improvement in body nutrition generally; (6) increased activity of mucous membranes, skin, and kidneys. The rheumatic symptoms and the anemia are not only not relieved, but are most frequently aggravated.—*Therapeutic Gazette*.

GLYCOSURIA FROM TAKING THYROID EXTRACT.—Dale James records a case in which a man of forty-five, an old psoriatic, took, without effect on his psoriasis, two tabloids daily. A week after he began to take four; however, he experienced depression with flushing and palpitations. The nervous symptoms increased; he found difficulty in writing, and felt and looked a very old man. A week later there were all the symptoms of marked glycosuria, which disappeared when the thyroid was discontinued, and he was put on a diabetic diet, but the psoriasis was in no way benefited.—*British Journal of Dermatology*.

THE MANUFACTURE OF DIPHTHERIA ANTITOXIN AT MUNICH.—The Laboratory at Munich is unable, at least for the present, to keep up with the demands made upon it for the production of antitoxin, and there is no prospect of a regular output before January, 1895. The number of horses which are now under treatment is at present thirty-two, and it is said that they become fully immune in not less than six to fifteen months. Efforts are being constantly made to increase the strength of the serum.—*Boston Medical and Surgical Journal*.

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BACTERIA IN BREAD AND BUTTER.

The New York Medical Record of the 17th ult. gives a summary of a report recently published in the Lancet, wherein Drs. J. Waldo and David Walsh give the results of their studies, from the bacteriological standpoint, made upon cultivations "from sixty-two loaves of bread taken from the various bakeshops of London. Some one of thirteen kinds of bacteria were found alive in all these loaves:"

BACTERIA (OR THEIR SPORES) FOUND IN A LIVING CONDITION IN FRESHLY BAKED LOAVES OF BREAD.—*Bacillus subtilis*, Variety 1 (hay bacillus); *bacillus subtilis*, Variety 2 (hay bacillus); *bacillus subtilis*, Variety 3 (hay bacillus); *sarcina* (*a*), large; *sarcina* (*b*), smaller than (*a*); *bacillus A* (large, thick, rounded ends); *bacillus B* (large, thick, smaller than A); *bacillus C* (small, copious spore formation); *bacillus D* (smaller, still some spore formation); *bacillus E* (*bacillus figurans*); *micrococcus A* (small white colonies); *micrococcus B* (*rosaceus* (?), accidental; *staphylococcus* (very regular, larger than *staphylococcus aureus*).

From a number of experiments made on loaves baked in a small laboratory oven it was found that: (1) The average maximum temperature in the middle of an ordinary quartern loaf during baking varies from 163.4° to 186.8° F., and in small loaves from 186.8° to 203° F. (2) There is a steady increase of temperature in the center of any loaf during baking; thus in a quartern loaf during one hour it rises from 25° to 75° C., and in a half-quartern loaf

from 25° to 88° C. during the same time. For the first forty minutes the maximum temperature is probably not more than 48° or 50° C. The practical inference is that any organisms that might be present in the center of a loaf would be exposed for a short time only during baking to a maximum temperature of 73° to 86° C. (163.4° to 186.8° F.) in a quartern, and of 86° to 95° C. (186.8° to 203° F.) in a half-quartern loaf.

It is known that most bacteria are not destroyed by an exposure to the temperatures above mentioned as the average for the center of a loaf during baking. The death-point of bacteria has been generally expressed by Koch and Wolfhügel in the following passage: (1) Sporeless bacteria are destroyed in one hour and a half by hot air at a temperature slightly exceeding 100° C. (212° F.). (2) Spores of fungi require one hour and a half at 110° to 115° C. (230° to 239° F.). Spores of bacilli require three hours at 140° C. (285° F.). It should be noted that these statements apply to dry heat only. In the middle of the loaf there is presumably moist heat, which is of course more destructive to organisms, and on that account we must make a considerable reduction in the figures of Koch when we apply them to fungi and their spores inside a loaf.

The authors draw this significant conclusion:

"We see no particular reason why the origin of many mysterious septic invasions of the human body may not eventually be traced to the agency of bread. A generation ago milk was not suspected of being the means of spreading disease, and a similar observation applies to water. At any rate, the subject dealt with in this paper seems to us to be well worthy the attention of all who are interested in the scientific developments of preventive medicine, no less than in the protection of the public that consumes the bread."

The above brings forcibly to our remembrance a case of diphtheria which we discovered in the manufacturing department of a bakeshop not more than two years ago. The patient was a girl, aged ten years. She was coughing up and spitting out, and when we examined her throat, vomiting out the bacilli of diphtheria among the boxes and barrels which held the ingredients which were to go into the bread and cakes which were to be distributed among the customers of her father the next day.

We had the child speedily removed to an upper story, but we could not condemn the baker's stock, nor under the law institute any effective measures for the protection of his customers. The many tuberculous sellers of things to eat who are permitted to spit at random upon their floors, and to cough *ad libitum* over the things which they sell, are, as every doctor knows, the opprobrium of public hygiene, and yet it is seldom that even the physician can suggest to the offender or his family

the danger to the public without giving offense, and much less can he institute any effective measure for its prevention.

But these aside; if bread after passing through the oven can be a carrier of the germs of disease, what shall we say of butter, which often comes from cows themselves diseased, and is always made from uncooked milk, which, from the stable-boy who milks the cows to the butter maid who pats the greasy mass into the cake for the consumer, must run a gauntlet of germs, specific and non-specific?

Volumes have been written about milk as a carrier of disease, but the sanitarian seems to have overlooked the fact that all the mischief that milk can do may be done by butter, with only this gruesome difference: milk can be sterilized without prejudice to its palatability or reduction of its value as a food; but butter can not be sterilized without serious damage to its best qualities.

The editor says that the authors offer no specific remedy for this menace to public health, except "that bakehouses and bakers should be kept clean, and that the whole process of bread-making be placed under sanitary control."

It might be possible to sterilize the raw materials of the bakeshop by submitting them to a sufficiently high temperature for a sufficient length of time; but this would seal up but one of many avenues of infection, and the results of this investigation go only to confirm what every thoughtful and observing physician, with the facts of science, and the behavior of those who prepare food for the people, before him, knows too well, to wit, that most if not all diseases gain entrance to the bodies of their victims through food and drinks. He knows, moreover, that immunity of contagious and infectious diseases can be attained only by placing all caterers to the human palate under absolute governmental sanitary regulation.

Notes and Queries.

TYPHOID FEVER FROM OYSTERS.—There is an outbreak of typhoid fever now at the Wesleyan College in Middletown, Conn., in which the contagion appears to have been carried in oysters. According to a dispatch in the *Evening Post* the story of the disease is as follows: The first case developed on October 22d, the student being the son of a physician in Vermont. The patient was taken home, and died. This case was followed rapidly by others—one fatal—until they now number about thirty. They began to develop about ten days after the initiations of six societies at Wesleyan, a supper being given by each. As all the sufferers had attended these suppers, investigation was turned in that direction. The Middletown city water and also the water from a well on the campus were examined and both found to be innocuous. The milk used at the initiation suppers was next looked into, and was found to be perfectly wholesome; it was obtained from farms where the conditions were healthful. It was next found that, while at all six of the suppers oysters were used, at three only were raw oysters supplied, and that all the victims had partaken of them. These oysters were bought from a Middletown dealer, who obtained them from an oyster grower living on the east shore of the Quinnapiac River, near New Haven. He, like the many other growers owning oyster establishments on the Quinnapiac, is accustomed to take the oysters from the deep waters of the Sound and lay them down before opening for some twenty-four hours in the shallows of the river. This makes the oysters absorb the fresher water of the stream, swells and whitens them, the technical phrase among the oyster men being “giving the oysters a drink.” The next discovery was that the oyster-grower’s wife had died of typhoid fever about the time of the outbreak at Wesleyan, and his daughter also has been ill of the disease. His house stands not far back from the river, and its short drain empties into the latter near the place where the oysters are bedded temporarily. In addition to the Wesleyan students there were visitors from Yale and Amherst, and two of these, one from each college, are also ill with typhoid. The same paper from which we have quoted reports that a gentleman in New Haven recently gave an entertainment at which raw oysters were served, and six of his guests are now suffering from typhoid. The bed of the Quinnapiac River is extensively used for oysters by the growers of Fair Haven and East Haven, which for many years have been centers of the Connecticut oyster trade. Many sewers empty into it, and it is to be hoped that the discovery of the source of the Wesleyan outbreak may lead to the discontinuance of the custom of temporary bedding, and to taking the oysters directly from the main beds in deep water.—*Medical Record*,

CEREBRAL LESIONS AND GONORRHEA.—In the *Revue Neurologique* Prof. Pitres has a paper on this subject. He has been led to publish the two cases presently to be referred to because of a recent communication given to the Society of Neurology and Psychiatry at Moscow by Prof. Tambourer on affections of the nervous system resulting from or associated with gonorrhea. In this communication M. Tambourer mentioned the case of a young man, aged twenty-five years, who, in the course of a chronic gleet lasting three years, was suddenly struck down with apoplexy and died on the third day. Unfortunately no necropsy was permitted, but M. Tambourer attributed the attack to septic embolism. Professor Pitres' cases are as follows: The first was that of a man aged fifty-nine years, who, in the course of an acute attack of gonorrhea, had, painful swelling of some joints the day after admission to hospital, and later in the same day was suddenly attacked with right hemiplegia, accompanied with coma. Six weeks later he was seized with Jacksonian convulsions, in which he died. At the necropsy a very extensive softening was found in the region of the Sylvian artery. The parts were diffuent, and no atheroma of the vessels could be discovered. No bacteriological examination was made. The second case was that of a young man aged twenty-three years. He had an attack of gonorrhea, from which he made a good recovery. A second one two years later had lasted for five months and was not quite cured when one morning he suddenly had an attack of left hemiplegia, which rapidly cleared up, so that in a few weeks he was able to use his hand and walk without difficulty; but there still remained facial asymmetry and a certain amount of awkwardness in carrying out voluntary movements with his left hand. There was no evidence of cardiac lesion or of atheromatous arteries. The coincidence of those attacks with the presence of gonorrhea is certainly striking, and the well-known fact that myelitis occurs apparently as a result of gonorrhea suggests that these cerebral lesions may have a close causal connection with that disease and are not merely coincidences.—*The Lancet*.

ANXIETY AS A CAUSE OF GRANULAR KIDNEY.—It is interesting, in relation to the ailment of the Czar, to recall a paper read by Professor Clifford-Allbutt at the annual meeting of the British Medical Association, at Sheffield, in 1876. The subject he took up was "Mental Anxiety as a Cause of Granular Kidney," and by an analysis of his case-books he showed what an abnormally large proportion of the patients showing symptoms of granular kidney had been subject to the depressing influence of prolonged anxiety. He says: "During the last two years I have made notes of thirty-five cases of granular kidney occurring in private practice, and I find a marked history of mental distress or care, or both, in twenty-four of them." This is a large proportion, even if we admit that the pushing inhabitants of West Yorkshire worry abnormally concerning this world's goods. Several illustrative cases are given, and one especially in which, as a consequence of an unfortunate investment, a man in a good position for three years "went to bed

night by night ignorant whether he might not be gradually drained of his all." Dickinson is in some sense in accord with Allbutt on this question, although not so positive. Prolonged mental disturbance, anxiety, or grief as a cause of granular kidney is, he says, "perhaps problematical; the mode of its operation is not obvious, but must be surmised as through the nervous system. A lowering of nervous force is to be recognized at least as predisposing to every form of albuminuria. I have seen so many instances in which granular degeneration has been immediately sequent upon trouble that, in the absence of other causes, I am fain to conclude that mental conditions are sometimes concerned in its production."—*British Medical Journal*.

THE SONG OF THE GENERAL PRACTITIONER.

Sung at the Annual Dinner of the Bolton and District Medical Society, October 4, 1894.

He must not walk his rounds for fear his patients think him poor,
And dearly do they love to see a carriage at their door;
And if his horse is fat, "He must have little work to do,"
And if it's lean the reason is, "He starves the poor old screw."

Should he call upon his patients every day when they are ill,
His motive plainly is "to make a great big doctor's bill;"
If he visits them less frequently—thus less'ning their expense—
The chances are he'll be accused of willful negligence.

He must work all day and half the night, and never say he's tired;
For the public look upon him simply as a servant hired;
And should he take a holiday, he'll find when he comes back
Some patients have resented it by giving him "the sack."

Concerning money he must seem indifferent to be,
And folks will think he practices from pure philanthropy,
When we hear about him boasting of the guineas that he earns,
We wonder if they all appear in his income-tax returns.

About his own afflictions he must never say a word;
The notion of a doctor being ill is so absurd!
And when, perhaps from overwork, he's laid upon the shelf
His sympathizing patients say, "Physician, heal thyself!"

J. JOHNSTON, M. D., in *Lancet*.

CLAUDE BERNARD.—A worthy tribute was last week paid to the memory of Claude Bernard. A statue of him has been erected in Lyons, the great commercial city in whose neighborhood he was born in 1813, and it has now been unveiled in presence of a large number of scientific notabilities. Delegates were sent from many foreign universities, including those of Lausanne, Freiburg, Bonn, and Glasgow. Bernard's career commenced in a pharmacy in Lyons; but he soon betook himself to the wider field and the unrivaled opportunities of Paris, where, at the age of twenty-eight, he became assistant to Magendie in the laboratory of the Col-

lège de France. Here he continued to work for many years, both at original research and in the training of pupils, who themselves became famous. until, as Professor of Experimental Medicine in the Collège de France, he succeeded Magendie in 1855. Until he was forty he remained undecided whether to devote himself to practical surgery or to pure science, but in 1853 he chose the latter, and took his degree of Doctor of Science at the Sorbonne. In 1867 the Emperor nominated him Commander of the Legion of Honor, the next year he was elected a member of the French Academy, and thenceforward he was everywhere recognized as the foremost representative of French science until his death in 1878. No wonder that the local patriotism of Lyons has provided a memorial of his early residence there. Our countryman, Lord Reay, speaking at a luncheon which followed the unveiling of the statue, eulogized the alliance between science and commerce and the cordiality existing between France and Great Britain.—*The Lancet*.

CHOLERA.—The almost complete absence of intelligence regarding the prevalence of cholera is of happy augury. It shows, at any rate, that the disease is nowhere actively progressing or present in any force, although it may, owing to conditions of season, have entered upon a period of latency or dormancy, to be revitalized at some later date upon the recurrence of seasonal and other conditions favorable to its development. The only exceptions to this apparent hibernation of the disease seems to be in Turkey and Silesia. The last telegrams stated that many fresh cases had occurred in Constantinople, and that the disease had attacked some of the soldiers quartered in the barracks. It is also reported that a sharp outbreak of choleraic disease had occurred among some troops quartered at Glogau in Silesia, and that Professor Flügge, of Breslau, had proceeded there to investigate the matter.—*The Lancet*.

PROFESSOR KOCH ON CHOLERA.—At the recent meeting of the German Public Health Society at Magdeburg, Dr. Koch said that it is now possible to prevent the spread of cholera in any country, and he was certain that Germany would never be visited again with an epidemic, if only the measures now adopted were carried out early and energetically. It was a matter of indifference to him what precautionary measures were taken in other countries, for Germany was now able to protect herself and keep the cholera out of her own borders.—*Medical Record*.

DRUNKENNESS IN ST. PETERSBURG is reported to be greatly on the increase, so much so that the authorities have become alarmed, and have instituted the most energetic measures to suppress it. Any one found drunk in the street is imprisoned for from one to three days, and the person from whom the last drink was bought, if he can be found, is fined from five to twenty-five rubles.

Special Notices.

J. H. BRIERLEY, M. D., A. B., Cumberland, Iowa, says: Papine is a perfect anodyne. One old lady said she had not had one fair night's rest, because of chronic rheumatism, for three months. Papine, one teaspoonful, gave a good night's rest, with no nausea nor dull feeling next day. I have given Papine to patients who knew they could not take morphia, and they never had a symptom to make them think any preparation of opium had been taken. Wherever morphia is indicated, Papine is much more so. I gave Papine to a patient with periostitis with deep abscess, and gave the Papine daily for two weeks without, so far as I could see, impairing appetite or deranging stomach or bowels in the least.

LISTOL TABLETS are manufactured expressly for physicians' prescriptions; they are entirely antiseptic, soothing and non-irritating; the remedy par excellence for the treatment of diseases peculiar to women. These Tablets are superseding the old methods of treatment that have proven so unsatisfactory, and are steadily winning their way into the good graces of the profession generally.

BROMO SODA holds its own on its merit. For nervous headache and stomach headache, insomnia, brain tire, debility, vertigo, and headache after taking opium, morphine, etc., it has but few equals if any superiors. And it is "so nice" to take and the effect is like magic in the majority of cases. It is one of the things one does not like to be without night or day.—*Army and Navy Magazine*.

LISTOL, though a comparatively new drug, is rapidly gaining the endorsement of the physicians who have taken the trouble to give it a trial, and it is already replacing iodoform in the many conditions in which the latter drug has been employed. Listol, when applied in dry powder to a wound, forms a coating and protects the injured surface from atmospheric poison, and prevents suppuration.

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THE AMERICAN PRACTITIONER AND NEWS

"NEC TENUI PENNĀ."

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Certainly it is excellent discipline for an author to feel that he must say all he has to say in the fewest possible words, or his reader is sure to skip them; and in the plainest possible words, or his reader will certainly misunderstand them. Generally, also, a downright fact may be told in a plain way; and we want downright facts at present more than any thing else.—RUSKIN.

Original Articles.

INEBRIETY AND ITS TREATMENT.

BY E. J. KEMPF, M. D.

Drinking and Drunkenness. Habitual drinking even to occasional drunkenness is no disease. It is a habit, which must be classed with the habit of smoking, with the habit of chewing wax or eating candy, with the habit of doing any thing. If one uses tobacco habitually, but his system does not suffer therefrom, he is certainly not afflicted with a disease. Some people curse, and lie, and steal, and gamble, and play cards, and follow Mrs. Venus, and dance, and gossip, and gluttonize, and loaf, and goggle on the street-corners, habitually to excess, and yet modern quackery has neglected to hypodermize these people. And why? Because these people are afflicted with follies which are feeders to the incomes of lawyers and preachers. If everybody were angelic, what would the professional people do for a living? The preacher could no longer sermonize, the lawyer no longer harmonize, and the would-be-reformer no longer reformize.

Liquor-drinking seems to be a universal custom. Of the people with whom I am acquainted, not over a dozen are total abstainers. The majority are habitual users of alcoholic drinks. Some drink daily, others occasionally. Once a year or so, at Christmas, or at Bob's wedding, or at Jim's oldest boy's christening, or during a political campaign, or on a fishing expedition, etc., some of us "get to feel it." And yet it were nonsense to call everybody who drinks, even excessively, an inebriate.

We are but subject to a custom or habit. Whether it is a bad habit is not even a settled fact.*

Quacks, however, make no distinction, which probably accounts for a large percentage of their so-called "cures."

Habitual Drunkenness. Now, while habitual drinking can not be called a disease, and drunkenness can not be considered any thing more than an intoxication from an overdose of alcohol, habitual drunkenness, technically called inebriety, is a very serious nervous disease. It is admitted that habitual drinking may bring on habitual drunkenness, but only in those predisposed to it. The habitual drinker is, however, laying the foundation for habitual drunkenness in his offspring. Reid† says that inebriety may commence with the first drink in those predisposed to it. To deny the inheritance of a predisposition to inebriety is to deny parentage.‡

Inebriety belongs to a class of diseases with morphinomania and similar types of drug habit, which are classified under narcomania, a name coined by Kerr.

Narcomania. The victim of narcomania is an involuntary slave of an insane propensity. He knows what he ought to do, but he can not do it; and he knows what is wrong, but he can not shun it. There is no loss of the power to judge of right and wrong, nor any disturbances as to facts, except in the latter stages or in complicated cases, but the mind is powerless to control conduct according to knowledge. This state which the narcomaniac is in may be called criminal irresponsibility. The narcomaniac does not exercise his free will to remain or to be a narcomaniac, for the simple reason that he no longer has a free will to exercise. The will, regarded as the highest power of the mind, as the controlling and directing faculty, is always impaired in the narcomaniac. He has lost the most important function of will, which is the control of actions. He has a degenerated will-power, which is technically called abulia. He is controlled by an irresistible paroxysmal impulse to use his favorite drug.

Alcoholomania. Magnau§ says, "There are present the urgent need to drink, the anguish which resistance occasions, the irresistible impulse to yield to the need, the annihilation of the will at the moment when the sick man yields to the impulse, with subsequent chagrin and remorse at having succumbed." Where alcoholomania is periodic its victim has inherited a neurotic constitu-

*Annual of the Universal Medical Sciences, 1892.

†*Ibid.*, 1894.

‡Annual of the Universal Medical Sciences, 1894.

§Annual of the Universal Medical Sciences, 1893.

tion, and his environments and habits of life have not helped him to overcome what he was born to. The only security of such a person is a lifelong total abstinence. Of course, if he gets the idea that his system needs spirits, then he becomes an incurable case. I could relate many such cases. But when you scare, or hypnotize, or suggest, or pray, or preach him into the idea that alcohol will bring him to the demnition bow-wows physically, mentally, and morally, then you stand a chance of curing the patient.

The diseased drunkard can not stop taking alcoholic drinks when he likes, though other drinkers can.* This the quacks take advantage of, and what good they do is largely among habitual drinkers who may be drunkards, but not habitual drunkards.

Total abstinence is good for everybody. The future belongs to the abstemious. These are the cries of one class. Temperance in all things is the thing. The future belongs to those who can use all things properly. These again are the cries of another class. But one thing is certain, total abstinence from all spirits is absolutely essential to the very existence of the alcoholomaniac. It is his only hope.

What is being done for the Inebriate. The inebriate can be preached and prayed into signing the pledge and tying a white ribbon into his buttonhole. Pledge will be broken and ribbon will be lost by the alcoholomaniac. One who has been drunk several times, or who has been drinking to excess, but who is not as yet an inebriate, can no doubt be reformed by such means. But never has an inebriate been permanently cured by praying or preaching.

The inebriate can voluntarily enter one of the "Gold Cure Institutions," but he can not be forced into them. "The legislature† of Michigan recently enacted a curious statute known as the 'Jag-Cure Act.' It allows a justice, upon the conviction of a disorderly person, instead of requiring a recognizance for good behavior, to accept a recognizance conditioned that the defendant will take the cure for the liquor habit in conformity with the rules and regulations of some corporation administering the cure. The Supreme Court of Michigan has held the act unconstitutional, on the ground that it remits the nature and extent of the punishment to the determination of the fluctuating rules of a private corporation, and transfers, in a measure, the pardoning power of the governor to such body."

And what do the "Gold Cure Institutes" do for the inebriate? They

*Kerr.

†Literary Digest, June 10, 1894.

say to the victim, "You are an inebriate; inebriety is a disease; we are the only people who possess the 'onliest' cure for it; yours is a bad case. You come? Good! Money in advance, please. Remedies, Nos. 1, 2, 3, and 4, hypodermically administered, and in four weeks you are well. If you relapse, it is your own fault."

By bold advertising and other objectionable methods they succeed in bleeding their victims and in gaining a temporary notoriety as benefactors of the human race. Whether they are conferring any real benefit on mankind the future must decide.

There are so many evils, imaginary and real, economic, civil, hygienic, political, social, religious, which the people are continually reforming, that the question of treating the narcomaniac by compulsion in a State institute will for the present be neglected.

I take it for granted that the reader interested in this article is a general practitioner. The specialist, with a sanatorium, of course knows more about such things than an obscure country doctor. It is my object to discuss the treatment of alcoholomaniacs who have neither the funds nor the opportunity to enter a sanatorium for the specialistic treatment of inebriety.

The Treatment of Alcoholomania by the General Practitioner. What can we common doctors do for the victim of narcomania? Not very much. The treatment of narcomania is yet largely empirical. Still the same must be said of the treatment of pneumonia, typhoid fever, tuberculosis, and innumerable other diseases.

Always bear in mind that inebriety is a disease of the brain, which has gone so far as to affect the will power. Till the injured brain tissue is rebuilt there can be no permanent cure. And till the cause of the mania is removed there can be no hope of any cure either temporary or permanent. The mere fact that the narcomaniac abstains from indulging in the use of the favorite drug is no sign of a permanent cure. He must be able to abstain for all time to come, under all conditions and any circumstances, and have his desires under easy control.

There are no medicines or combinations of medicines which will destroy the appetite for alcoholic liquor permanently,* but medicines are of great value in the treatment of narcomania. Taking it for granted now that the physician has examined his patient thoroughly, and has made out all the abnormal conditions, he proceeds to cure his patient if he can. It were absurd, however, and quackery besides, to

*Annual of the Universal Medical Sciences, 1893.

promise to cure the alcoholomaniac in three or four weeks with a few daily hypodermics.

Treatment of a Paroxysm. If the narcomaniac is brought to you by friends for treatment, and he is in a state of intoxication, a good big dose of wine of antimony in a dram of whisky,* or a hypodermic injection of apomorphine† will bring him to his senses quicker than any thing, especially if you suggest to him that the whisky is going back on him. If the patient is in a state of delirium tremens, or in a paroxysm of dipsomania, put him into the hands of a competent nurse, who will do just what you tell him. If the patient is wild with delirium, give him bromide of sodium in thirty-grain doses, or Peacock's Syrup of the Bromides in teaspoonful doses every two hours. If he is restless and can not sleep, give him a hypodermic injection of $\frac{1}{4}$ grain of morphine and $\frac{1}{150}$ grain of atropine every four hours until he rests. Follow this treatment with tablespoonful doses of liquor ammonia acetatis,‡ or thirty-grain doses of muriate ammonia, until his delirium and nervousness subside. For the stomach trouble give him bicarbonate of sodium. If the patient's heart seems to be weak, give him $\frac{1}{40}$ grain of nitrate strychnia hypodermically every six hours, and gradually enlarge the dose until as much as $\frac{1}{4}$ grain is given in the twenty-four hours.§

If there is vomiting, let the patient drink all the water he can. I have known them to drink three and four pitchers of water during the day, and by vomiting it up again undergo a systematic lavage of the stomach. This vomiting is one of the mainstays of the many "secret cures" prevailing throughout the land. It is but following nature's way, as most of the paroxysms of dipsomania are ended by the patient's stomach refusing to tolerate any more liquor.||

As soon as you can, give the patient a hot bath; a Turkish bath is preferred. And repeat the bathing at intervals of six or eight hours.¶

Treatment of the Patient with the View of a Permanent Cure. The first consideration is that assertion rather than argument with a patient is always to be counseled. In fact, one of the main points in the successful treatment of narcomania is to lay down the regulations and to decline to discuss them, to modify them, or to deviate them in any way. Remember you are dealing with a person who is daft.

*Moore, University Medical Magazine, Jan., 1891.

†Dr. G. W. Bath, in the Clinique.

‡Kerr.

§Hare's System of Therapeutics.

¶Bath, in the Clinique.

¶Kerr.

This is the main reason why the "Gold Curers" succeed in curing some of the narcomaniacs. Mystery and suggestion are powerful weapons in the hands of these doctors, and enable them to control the thoughts and actions of their patients and influence their will and wish.

When the patient gets into your hands for treatment you must gain his confidence and his absolute faith that you can cure him, if he does what you tell him and helps you along by his desire to be cured. With this object in view examine the patient thoroughly. The indulgence may be from physical suffering or mental distress, but there is always a reason for it.

A woman suffering from inflammatory affections of the appendages may be a dipsomaniac at her monthly periods. Several such cases have come under my observation. One, Dr. McMurtry, of Louisville, operated on, a cure of the drinking habit following. Another, I treated for several months with vaginal tampons, tincture iodine, and injections *per vaginam*, blisters over the abdomen, and utero-ovarian tonics internally, and a cure followed. And still another case under my care will not get cured permanently of her dipsomania until she has a laparotomy performed upon her.

How foolish and childish it would be to "cure" such cases hypodermically in three or four weeks. Such "cures" cast ridicule upon the perpetrator, even if it were Keeley himself.

Nasal catarrh, nasal obstruction, gastro-intestinal disturbances, torpid liver, fissure of the anus, eczema of the scrotum, sexual perversion, sexual excesses, sexual neurasthenia, and many other diseases may not only cause a narcomania, but also keep it up.

How absurd it would be to endeavor to "cure" such cases in three or four weeks hypodermically without first removing the thorn in the flesh, the disease that causes the narcomania.

A gentleman suffering from gastralgia, caused by a sthenic type of lithemia, was cured two years ago in an "Institute" of the morphine and the alcohol habits. This cure was heralded far and wide. Partly on the strength of it the gentleman was elected to an important public office, and is still held up as a "reformed man." Yesterday evening this "cured" gentleman was in my office and said to me, "Oh, doctor, what will become of me!" He had been drinking whisky to ease his stomach-pain, and he begged me for a hypodermic injection of morphine. Just so, the world don't know it, and the "gold curers" can go on claiming credit for what they did not do. They did not cure this man in three

or four weeks of the cause of his alcoholomania, consequently he soon fell by the wayside.

Therefore, examine your patient thoroughly. Find out his family history, his age, his habits in every particular, his mode of life, and his physical condition. Examine the organs of his chest, and the abdomen; examine his nose and his throat; examine him all over, his tongue, his pulse, his eyes, his ears, his rectum, his scrotum, etc.; examine him in regard to syphilis, or tuberculosis, etc.; examine his urine; observe his talk and his actions. If you find any thing wrong, and you certainly will, make a note of it.

If the patient has an incurable disease, and not many years to live, better let him drink on* rather than to be cured temporarily, with an early relapse much to your discredit. Try to make him understand that he needs liquor, but that he should use it like a rational being, and not like a hog. Instruct him to use it as a medicine, not as a "devil's-brew."

If you finally conclude to treat the patient, take him into hand as you would any other patient suffering from any other disease. Put the patient on a nutritious diet. Tell him to eat eggs, bread, meat, vegetables, and to avoid candy, cake, and pastry. Tell him to drink milk, water, coffee, chocolate, tea, seltzer, and lemonade. Tell him to eat oranges, apples, grapes, peaches, bananas, and all kinds of fruit. Providing, of course, he can. Tell him to eat what his stomach will digest. Some may not be able to eat or drink any thing except flaxseed lemonade for several days. So, you see, not even as to the eating can any definite rules be laid down, which could be printed and sold at so much per "deestriect."

Tell the patient to take a bath every morning if possible; to wear flannel next to the skin; to take moderate exercise, and to endeavor to gain control over all his actions. In other words, let the patient exercise his will-power. Work on his pride, and give him mental gymnastics. Let him acquire a pride and a pleasure in the knowledge that he is acquiring the power to crush his passions and his evil habits down into the dust.

Not long ago I became acquainted with a doctor who had twice taken the Keeley cure. Twice has he relapsed. And why? Because he was afflicted with sexual neurasthenia. He is now almost a wreck. It is necessary that this man be confined in an asylum for a year or two before he can be cured permanently. Let me tell you his future: He

*Bath, in the *Clinique, Medical and Surgical Reporter*, September 5, 1884, p. 133.

will die of pneumonia or tuberculosis of the lung before many years. He is the victim of an inherited neurotic constitution, and he has never learned to control his evil desires.

Get your patient interested in some useful occupation, and make him desirous of becoming a man. One of my patients, whom I treated a year ago with success, is now going to school, though he is thirty years old, and they tell me he is doing well. His ambition is to become a teacher. Get your patient in that kind of a frame of mind, and, providing his physical system is healthy, there is hopes for him to remain permanently cured.

Now as to Medical Treatment. Clean out the gastro-intestinal canal and stir up the liver and kidney of your patient by repeated doses of calomel or blue mass,* followed with salines. After that keep his bowels in action with phosphate of sodium, or S. and D's. pill of aloin, strychnine, belladonna, and ipecac. If his stomach is irritable, give the patient bicarbonate of sodium, or subgallate of bismuth, or subnitrate of bismuth, combined with oxide of zinc and pepsin, or the elixir maltopepsine, or the elixir lactopeptine, or the solution of bismuth and hydrastia (Merrell). The last is my favorite. If the patient can not eat, give him the liquid beef peptonoids for a day or two, and then start him on a little peptonized milk. No two cases can be treated alike in this respect. As tonics prescribe any of the following, either singly or in combination :

- Non-alcoholic Tincture of Cinchona Compound.
- Non-alcoholic Tincture of Gentian.
- Non-alcoholic Tincture of Capsicum.
- Non-alcoholic Tincture of Serpentaria.
- Non-alcoholic Tincture of Apium Graveoleus.
- Acid Phosphates, Horsford's.
- Elixir Three Chlorides, Renz & Henry.
- Antidipsole, S. H. Garvin & Co.
- Compound Tincture Gentian with Dilute Nitric Acid.

The non-alcoholic tinctures are made by substituting glycerine for the alcohol and adding a small quantity of acetic acid.† Any reputable pharmacist can make these non-alcoholic tinctures. The idea is to deprive the patient of the use of alcohol as soon as possible, and besides to enable him to take fluid medicines instead of swallowing the cause of his narcomania.

*Annual of the Universal Medical Sciences, 1894, Peterson. †Annual of the Universal Medical Sciences.

Give the patient any medicine or any treatment the symptoms may call for. No two cases can be treated just alike.

Give the patient, morning, noon, and night, and at bedtime, $\frac{1}{40}$ grain of nitrate of strychnia and $\frac{1}{160}$ grain of atropine,* dissolved in filtered, distilled water, by hypodermic injection anywhere into his anatomy, the deltoid muscles preferred. Use P., D. & Co.'s tablets and P., D. & Co.'s hypodermic syringe, and you will not be bothered with abscesses. I gave over four thousand continuous injections without an abscess. Continue these injections for four weeks.†

Give the patient for several months after this the elixir iron, quinine, and strychnia, or one of the tonics before mentioned. My favorite is the elixir iron, quinine, and strychnia. Let him occasionally take a tablet of calomel and soda.

Charge a reasonable fee, and collect it if you can. If your patient pays you money, he will follow your directions more closely, because he feels he is receiving something that he has paid for. And if he falls by the wayside, your trouble will at least have had some pecuniary recompense. About twenty-five per cent of your cases can be permanently cured.

One such letter as the following, however, will recompense you for ninety-nine failures out of the hundred:

. . . I have no desire for whisky, wine, or beer. I can enjoy life without stimulants. That is how I know that I am cured. I can hitch up a horse, or write a poem, or talk to a girl, or go to a dance without feeling the least want or desire for whisky, to say nothing of wanting to get drunk. Before you treated me, though I kept abstemious entirely for a month or so, I always did it under a silent protest. I thought, Why should others drink and I not? I thought that the main part of life's pleasure was a mild intoxication. Now I feel superior to those who drink; now I take pride to say, "No, thank you, I don't drink;" now, I really feel better, think better, and work better without drinking. I really believe that I will never drink again. I simply state the above facts to you as they are. . . .

In conclusion, I would suggest:

1. That you refer your narcomaniacs for treatment to a reputable, regular specialist, who has a sanatorium.
2. That the mainstay of the "Gold Cures" is suggestion.‡ And that the "Gold Cures" are akin to cures by praying, preaching, and pledging, which to my mind are three ways of hypnotizing people.

*Dr. G. W. Bath, in the Clinique.

‡Annual of the Universal Medical Sciences, 1894.

†Medical and Surgical Reporter, Sep. 8, 1894, p. 332.

3. That the narcomaniac must become a total abstainer from choice, desire, and will before he can call himself cured.

4. That the cause of narcomania must first be discovered and permanently cured before the narcomaniac can be dismissed as cured.

5. That there are no medicines or combinations of medicines which are a specific cure for alcoholomania. But they are valuable aids in the treatment of the disease.

6. That for a permanent cure years of treatment are often required.*

7. That no two cases can be treated exactly alike with any hope of success, and that the treatment of alcoholomania is still largely empirical.

8. That laws made by the State to compel the alcoholomaniac or the drunkard to enter a private institute for treatment have been held unconstitutional, and consequently the State should erect asylums similar to the insane asylums for the treatment of all confirmed habitual drunkards.

9. That the State owes this to its citizens, so long as the State derives an income from taxing the sale of that which makes the drunkards.†

JASPER, IND.

ENDOMETRITIS.‡

BY THOS. S. BULLOCK, M. D.

Assistant to the Chair of Obstetrics and Diseases of Women, University of Louisville.

In no department of medicine have improved methods of treatment produced more gratifying results than in endometritis. The extreme chronicity—nay, the seeming incurability of the disease under the old method of application to the endometrium of various chemical agents is still fresh in the minds of every gynecologist, and not a few can recall instances in which positive injury was inflicted.

A new era dawned when such a uterus was looked upon as an immense septic cavity, and the rational method of perfect drainage and complete removal of the diseased tissue began. Whenever pus escapes

*Journal of the American Medical Association, April 15, 1893.

†Medical Journal, North Carolina, Kempf, 1889.

‡Read before the Louisville Medico-Chirurgical Society, November 13, 1894. For discussion see p. 503.

from the uterus it is an absolute indication that the pyogenic cocci are in the organ.

The chief causes of endometritis are septic and gonorrheal infection, the latter being by far the most common. If sepsis be the cause staphylococci are ordinarily present, except in puerperal cases when streptococci are present. If gonorrhea, the gonococci are found occupying the follicles and lying below the epithelium. They do not extend deeply into the mucosa, and do not extend along the lymph spaces as do the staphylococci, and hence do not cause peritonitis and systemic infection except by extension through the tubes, the great complication being salpingitis. In many cases, doubtless, infection is prevented by the closure of the tubes by inflammation. In septic endometritis the danger of the peritoneum becoming infected is great, the staphylococcus following the lymph channels and the sequence being endometritis, metritis, lymphangitis, and peritonitis.

Concerning the symptoms of endometritis, it will suffice to say that they differ slightly according to the character of the infection, being somewhat more severe in the septic form.

Treatment. There is still a great diversity of opinion, the moot points being (1) whether the sharp or dull curette be employed; (2) the material to be used for drainage; (3) the propriety of curettage in the presence of acute tubal or peritoneal manifestations.

1. As to the first question. The danger of curettage lies not in the proper use of the instrument, but in introducing it roughly and with force. It should be held as a pencil and used with a delicate touch. The smaller the loop the greater the danger of perforating the uterus. This accident has happened a number of times, and occurs most often in puerperal cases. Dr. Garrigues says it has happened twice to him, and that the operator need not be particularly alarmed, as no bad results follow, it being necessary to omit the second step in the operation, namely, irrigation. I do not think the accident has occurred in this city. The dull curette removes only the epithelium and the softer external portions of the mucosa, and, if the septic focus is local, removes the only protection against general infection without going deep enough to remove the cocci.

2. Drainage gauze is, I think, the best material for this purpose. The ease of its introduction depends on the thoroughness of the dilatation, being easy if sufficient, and difficult if not impossible when the contrary obtains. The ordinary rubber drainage-tube folded upon itself, popular-

ized if not introduced by Dr. Turner Anderson, answers an excellent purpose in many cases. In some patients, however, hemorrhage is produced, and enough uterine action is excited to cause the expulsion of the tube. Self-retaining aluminum tubes have also been used, but are not satisfactory, being prone, if the os is patulous, to slip up in the canal.

Since the adoption of the above method of treatment I have treated many cases and have failed to relieve none, and no bad effect has resulted.

3. As to the propriety of interference in the presence of pelvic inflammation the problem is divided, one faction condemning active interference, the other strongly advising it as the only way out of the difficulty. The following, from the American Text-Book of Gynecology, states the case for those who advocate radical measures:

"It is eminently correct in theory to curette the uterus in all cases of acute or chronic endometritis with salpingitis or peritonitis, and practice has proven its correctness, it being adopted by many eminent surgeons as the first operation before dealing with the complications. In no other part of the body is the unsurgical rule adopted of removing the results of septic infection and ignoring the cause. One of three methods must be adopted: either poultices and hot douches, curettement and drainage as in any septic cavity, or a primary celiotomy. The first is the method of the midwife, and simply allows the infection to work its will. The second is surgical in every sense of the word, while to adopt the latter precipitates operation at the worst time and stamps a man as blind to reason and the work of other men, and willing to open the abdomen of a fellow being rashly and unnecessarily."

In doing the operation of curettage the first indication is to thoroughly render the vagina aseptic, next to dilate the cervix slowly and cautiously, remembering that sudden pressure must not be used on the unstripped muscular fiber. Unless an unusual degree of stenosis exists the dilator of Goodell is preferable to the Hanks, as with the latter pressure is made against a tenaculum and the tissue is liable to be torn or the dilatation to be insufficient. The curettage is now systematically and thoroughly performed, the uterus irrigated, and the gauze-drain introduced. If the dilatation has been sufficient no uterine colic is produced and the drain is not expelled. If the uterus is not enlarged and no complication exists, it need not be removed for four or five days, care being taken not to reinfect the case. If the uterus be large and complications present, the dressing should be removed on the third day, sooner if the temperature rise, and renewed when saturated.

In closing, the following conclusions present themselves:

1. The chronicity of the case depends upon whether the treatment be radical or palliative.
2. The sharp curette should be used.
3. Complete removal of the infected endometrium is imperative.
4. Curettage properly done is devoid of danger and diminishes the chance of pelvic inflammation.
5. If uterine colic follow, the dilatation has been insufficient.

LOUISVILLE.

PERINEAL SECTION (EXTERNAL) WITHOUT A GUIDE.*

BY B. F. HERNDON, M. D.

In assuming the duties and responsibilities of preparing a paper for the consideration of such a learned body of doctors as compose the Kentucky State Medical Society, one especially not accustomed to journalizing must of necessity feel considerable embarrassment upon such an occasion, to say the least of it.

The object of this paper will be twofold: firstly, to consume as little of your time as possible, and secondly, to give as briefly as I can the details of an external perineal section without a guide.

The patient is a farmer, fifty-three years of age, general health has heretofore been good, with the exception of an attack of articular rheumatism some three or four years prior to the present trouble. Whether he has ever had gonorrhea or not I am unable to ascertain. On October 18, 1893, while at work in the lumber business, he was engaged in sawing off a stock from the trunk of a very large tree, and, being on the lower side of the log, in his efforts to get out of way of the log he slipped and fell, the log passing across his abdomen and lower extremities.

I was called to see him hurriedly on the same day of the accident, but was professionally unable to go, and it was only on the morning of the fifth day after the accident that I was enabled to see him. I give you this brief history of the accident for the reason that will appear further on.

I found the patient in great pain, the penis, scrotum, and perineum were extravasated with urine and swollen to an enormous extent; the bowels and stomach were considerably distended with gas, and he had

*Read at the June meeting of the Kentucky State Medical Society, 1894.

had no evacuation from the bowels or bladder since the day of the accident. The extravasated condition of the parts heretofore mentioned was relieved by the use of the Truax surgical pump and a small aspirating needle, and the bowels were relieved by an enema. On thorough examination of the urethra I found he had a stricture posterior to the bulbo-membranous junction impermeable to the smallest filiform bougie.

The temperature was found to be 104° , pulse 120. The patient was placed in the lithotomy position, the parts cleansed and shaven.

The operation I performed was external perineal urethrotomy, sometimes called perineal section.

The instruments for this operation consisted of the ordinary scalpel-beaked bistoury, whalebone guide, grooved and tunneled catheter, some ordinary sounds, a gum catheter, small probe, grooved director, spatula, tenacula, two strong ligatures armed with curved needles, and the ordinary instruments for controlling hemorrhage.

The patient was anesthetized, the urethra was filled with olive oil. After having failed to introduce the guide into the bladder the tunneled catheter staff was passed over a whalebone guide along the urethra to the front face of the stricture, an incision about two and one half inches in length was then made in the median line down to and through the urethra into the groove at the end of the staff; the urethra was then sufficiently incised to permit the introduction of a large sound; the stricture in the anterior portion of the urethra was divided by the urethrotome. The urethra was now enlarged throughout to a uniform size; a rubber catheter, size 35, was then passed through the perineal wound into the bladder and the parts thoroughly irrigated. The anterior opening was found to be directly in the median line. The major portion of the perineal wound was closed by antiseptic sutures carried deeply, leaving sufficient room for the introduction of a large flexible catheter through the neck of the bladder. The wound was dressed antiseptically, the catheter was removed on the fourth day. Different sized sounds were then passed every two or three days for two weeks. After the second week the urine was passed by the natural channel, the patient was put on tonic treatment and supporting diet; the wound healed nicely and rapidly; in six weeks the patient made an excellent recovery, and is at present at work and in good health.

In closing this paper I desire to call your attention to the fact that the patient informed me that he was treated for stricture some three or four years prior to the present trouble, while he was at the Hot Springs,

Arkansas, where he had gone for the benefit of his health while suffering with rheumatism, and had had no trouble in voiding his urine since then up to the time of the accident, but after the accident a country physician was called to see him, and attempted to relieve the bladder by the use of a female silver catheter. Now the question arises, was the extravasated condition of the parts heretofore mentioned due to traumatic causes (so to speak), that is to say, from the injury received from the log, the attempt at passing the female catheter, or from the natural consequence of the previous stricture? These questions I ask for information.

BARBOURVILLE, KY.

Reports of Societies.

THE LOUISVILLE MEDICO-CHIRURGICAL SOCIETY.

Stated Meeting, November 13, 1894, Dr. W. L. Rodman, Vice-President, in the chair.

The essay was read by Dr. T. S. Bullock; subject, Endometritis. [See page 498.]

DISCUSSION.

Dr. Turner Anderson: I want to say that I appreciate the paper presented by Dr. Bullock, and am very glad that he has presented the subject in this forcible way. It has been a long time since I have treated chronic endometritis in any way except recognizing that I was dealing with a pus cavity. I treat the lining membrane of the uterus as I would treat any cavity in which there was a purulent discharge.

I do not claim the credit of introducing drainage by means of the fenestrated tube, but I do claim that I have had very great success in the use of the tube. I wish to speak only of the material used in drainage. If it is a puerperal case and there is retention of membranes, I dilate, curette, and use as a pack ordinary iodoform gauze. If it is a chronic case with a good deal of thickening of the uterine walls, I resort to the drainage-tube. I take an ordinary rubber tube, fenestrated, fold it, measure the cavity of the uterus, cut the tube the proper length, and so introduce it as to allow it to separate the lips of the cervix and effect drainage. In the more chronic cases I am in the habit of resorting to a more sustained drainage than we get in a single packing of

iodoform gauze. I put in an aluminum drainage-tube and allow the patient to wear this for days, when it is removed and an application of some medicinal agent is used. Then the tube is re-introduced. This is repeated until as nearly as possible a healthy condition of the mucous membrane is established. We can not hope to do much in these cases unless we treat the uterus as a pus cavity and drain it.

Dr. John G. Cecil: I am thoroughly in accord with every sentiment expressed in the paper, not only from a theoretical but from a practical standpoint. I have for many years adopted the plan that is outlined in the paper, and have never had any reason to regret it. I have invariably used the sharp curette in all cases tending to chronicity, and would use the dull curette only to remove secundines or *debris* after abortion. I would say that this question of the treatment of chronic affections of the womb, which were so long the opprobrium of gynecological practice, no longer obtains with those who pursue the line of treatment so well indicated by the essayist. I have seen the practice of Dr. Anderson in the public clinic on Chestnut Street, and I know that the double uterine drainage-tube of rubber is a most excellent one. I think he makes a good point in discriminating the cases in which it should be used.

I wish to say one word with reference to the further treatment of these cases, where perhaps the bogginess of the womb is the most important feature, where there is marked interstitial metritis, if you please. In these cases I believe we have a good agent in the electric current. Dr. Howard has done some work in this line, and I have myself in the last year treated several cases with a great deal of satisfaction, applying remedies which, before the introduction of the galvanic current, were of comparatively little value. The old iodine treatment, with the simple addition of a mild galvanic current for five or ten minutes twice a week, has proven of excellent use. It seems to establish better circulation, and to restore enlarged and heavy uteri to their normal size more rapidly than any other means of treatment. I would recommend this as further treatment after curettement and packing has removed the pus-bearing membrane. It is also excellent in cases in which the cavities are not suppurating; that is, uteri which are not discharging much pus, but are rather heavy and simply weeping, an abnormally large amount of fluid being poured out by the follicles in the cervix and body.

Dr. H. A. Cottell: The term electrophoresis has been objected to when used in place of cataphoresis, but that is merely a technical quibble.

A real cataphoresis would be to introduce medicines at the anode and get effects at the cathode. When this method is applied to the uterus, as Drs. Cecil and Howard have suggested, I doubt very much if there is enough iodine driven through the mucous membrane to have a very decided effect upon it. That you can destroy micro-organisms I very much doubt. If you get any effect upon the heavy uterus it is the same effect that Apostoli claims to get in enlarged uteri. It is the contraction of the uterine muscular fibers rather than the medication which does good. For several years in the University clinic we have treated goitres according to this manner, but how much iodine we really get into the goitre has been a question in my mind. Nearly every patient will say that he tastes iodine, and in many cases this persists some time after the application. Some time ago, when this question was up for discussion, Dr. Marvin said it was the influence of the current upon the gustatory nerves or centers and not a proof that the iodine had been driven into the nerve center. It has been said that you can put iodine or iodide of potassium upon the anode and a solution of starch upon the cathode, and that on closing the current the starch will be turned blue, which proves that the iodine has actually gone through the body. But this has been denied and laughed at by some eminent teachers and insisted upon by others. One thing is certain, goitres persistently treated by means of a solution of iodine in iodide of potassium do disappear, and some of them very rapidly.

Dr. John L. Howard: In respect to the paper, I am very sorry Dr. Bullock did not give us a report of cases, because I have assisted him in a number of operations in which he had excellent results from the sharp curette. One case particularly that I remember, where there was no intimation that the trouble was gonorrheal.

I certainly believe in the sharp curette; but at the same time I have gotten good results in three cases, one gonorrheal, by the electrophoresis of iodine. One case was under treatment only a month, and I made only eight or ten applications. I would like to bring out in the technique of applying iodine in this manner, first, that it is very easy to drive iodine into the anterior wall of the uterus by placing the cathode over the hypogastric region, but when the iodine is to be driven posteriorly I get better results with the cathode in the rectum. In the last case, in which the result was so excellent, the disease being of gonorrheal origin, this procedure was followed.

I had expected by this time to have a more complete report of elec-

trophoresis in these cases, and would not say as yet that the electrophoresis of iodine can substitute the sharp curette. But I can say that the procedure is a valuable aid after curettement in hastening a cure. It is devoid of danger and free from pain, so it is never necessary to give an anesthetic.

Dr. T. S. Bullock (closing the discussion): I have nothing further to add, except to state that we have treated, at the clinic of the University of Louisville, in the last year one hundred and fifteen cases of endometritis, the majority of them due to gonorrheal infection. In no case have we failed to effect a cure. I have had also several cases in private practice and some in hospital, and the same result was obtained. The method has been so eminently satisfactory that I have never had occasion to resort to the other means outlined by Dr. Cecil and Dr. Howard.

Dr. Howard (Presentation of Cases): This patient is thirty years of age, a molder by trade, married, and has two children. His father died when the patient was quite young; mother is still living and healthy. There is no history of an injury, tuberculosis or syphilis. He first noticed the present trouble, which is a growth embracing the whole of the left clavicle, about one year ago. During the last six weeks it has increased considerably in size. He has not lost in weight. Pain is complained of in the forearm more than anywhere else.

DISCUSSION.

Dr. A. M. Vance: This is a very interesting and uncommon case. I take it to be central sarcoma of the clavicle. I do not think it is tubercular disease, because this is very uncommon in the clavicle and is usually localized. I do not think it is syphilis, because he has no other evidences of the disease and does not give a syphilitic history. The treatment should be to excise the entire clavicle.

Dr. W. L. Rodman: As to the growth on the clavicle, I coincide with Dr. Vance and others. It seems to affect the entire clavicle, probably beginning near the manubrium. The only treatment is excision.

Keen has reported a case where he amputated the shoulder-joint and removed the clavicle and scapula at one sitting. The patient recovered from the operation.

Some years ago, in writing a paper on tumors in this region, I made this statement: "Tumors confined to the superficial parts around the

shoulder-joint are almost invariably innocent. Tumors growing from any bone in this region, especially the humerus, are very likely to be sarcomatous; if not so originally, they are likely to undergo sarcomatous degeneration."

The rapidity of the growth and the absence of tubercular and syphilitic disease in this case point to malignancy.

Dr. Vance: Certainly the patient, not the surgeon, must decide whether or not the operation shall be done. We should tell him that the disease will cost him his life very shortly. If he wants his life prolonged, the bone should be excised at once. I think a more or less useful arm follows the removal of the clavicle.

Dr. W. O. Roberts: I think he would have a very useful arm. He would have to do all his heavy work with the left hand instead of the right.

Dr. Rodman: The ordinary life of a central sarcoma is rather long; three years is a fair average, and they frequently last seven years when they affect the tibia. In the clavicle I think it would run a shorter course on account of the increased blood supply. Pressure symptoms will no doubt soon arise.

Dr. Howard: I would like to say that the case puts me in a rather delicate position. The man came to me and said: "If this thing is going to cost me my life or usefulness to my family, I want to know it in time to take out an insurance policy that would cover this disablement." He also asked me whether or not an operation would permanently disable the arm.

Dr. Bullock (Exhibition of Pathological Specimens): This is a case of gunshot wound that occurred two weeks ago last Sunday. The negro was shot by a policeman. An interesting point in the case was a perforation of the large gut and also of the stomach, but we could find no point of exit on the stomach. The patient was drunk when brought in. Dr. Butler not being available, I began the operation and located the wounds in the colon and stomach, which were sutured by Dr. Roberts. The man lived about forty-eight hours after the operation, and died apparently from shock. The *post-mortem* revealed that the bullet had remained in the stomach, as it was found in the duodenum just below the pyloric orifice, probably having passed out of the stomach by peristaltic action. The wounds were sewed with catgut, and have united perfectly.

DISCUSSION.

Dr. Roberts: It strikes me in this case we lost a good deal of time and possibly increased the danger by prolonging the search for another opening. We examined the intestines very thoroughly, and could only find the openings we sewed up. But there seemed to be an escape of gas somewhere we thought, and for that reason looked closely for another wound, and possibly increased the shock by the long-continued search for another wound.

Dr. Anderson: I had a case of a boy who was shot in the apex of Scarpa's triangle by the discharge of a policeman's pistol, and the bullet penetrated the bladder. He went on and made a satisfactory recovery. He passed bloody water and had symptoms of a foreign body in the bladder, and the bullet was finally removed, after he had grown up to be a man, from the fossa navicularis.

Dr. Bullock: I questioned this man as to the distance the policeman was from him, and he said about half a square. I suppose this accounts for the fact that the ball remained in the stomach.

Dr. Rodman: I would like to ask Dr. Roberts if he thinks it necessary to prolong the search for the ball beyond a reasonable length of time?

Dr. Roberts: No.

Dr. Cottell: I do not see any reason why the bullet could not get through the pylorus by peristalsis. If you put a bullet and some food into the stomach, the food will go circling round and round for some hours, but the bullet will pass in a short time into the duodenum.

Dr. Vance: I am delighted with the exhibition, and think it proves a point. As a rule these cases do not die from leakage of the wounds, but from shock and from escape of septic material before the operation is done. I have always used catgut in intestinal wounds, which is contrary to the teaching of many authorities. I believe it to be the best material from my experience in intestinal wounds in dogs.

Dr. Bailey: I would like to ask whether it would not be interesting to the attorney who is to defend these men as to whether the operation or the bullet killed the man.

Dr. Vance: The law does not recognize the operation as a cause of death. If the bullet had not been there the man would not have died.

Dr. Roberts: I have a collection of gall-stones which I removed from a patient of Dr. Anderson's last Monday. The lady is sixty-seven years of age. She presented a tumor in the right side of the abdomen, which had been diagnosed a distended gall-bladder containing stones. I thought this diagnosis was correct, but was not certain, and advised an exploratory operation, which was done Monday. We made a perpendicular incision, found the omentum covering the gall-bladder and closely adherent to it. When we reached the gall-bladder there was a point as large as a black-eyed pea that was quite black. I introduced an aspirator and drew off fully three ounces of pus, and then drew the gall-bladder into the abdominal wound and opened it with a knife, after protecting the parts with iodoform gauze, and removed twenty stones. Nineteen of them were quite loose; the last one was embedded in the duct, and it was with some difficulty that I finally got it out. The patient has gone along uninterruptedly well and is now out of danger.

Dr. Anderson: I was quite certain that it was a distended gall-bladder, and advised operation, but it was declined. I asked Dr. Roberts to see the case, and he also thought it was distended gall-bladder. The symptoms were so plainly the symptoms of a distended gall-bladder that I was positive if an operation was not done soon the bladder would rupture. There was nothing in the history of the case up to that time of special interest. The patient had at different times in the last ten years consulted me, but there had been no special reference to hepatic disturbance until a few days before I was called.

The case has gone on without an accident, and I believe she will recover. I do not know that this case presents any thing so unusual as to be of special interest. I saw Dr. Vance operate upon a case similar to this some time ago, and the patient made a satisfactory recovery.

Dr. Cottell: The case is certainly a very interesting one, and the stones are not only large but rather peculiar in color. I do not remember to have seen heretofore gall-stones quite so dark colored as these nor quite so highly polished. I remember a case operated upon by Dr. Roberts, about ten years ago, wherein he removed a very large number of stones. They were highly polished, quite smooth, and had a peculiar grayish color like the impacted one in this case.

A point advanced by one of the speakers is not tenable. The gall-bladder is a reservoir and serves for the overflow of bile. A patient might go on for years with a distended gall-bladder and still not have from the feces or condition of the alimentary canal evidence of

lack of bile. If you should shut bile out from the alimentary canal you would certainly interfere with a number of important functions. You would get rid of the great intestinal disinfectant; certain processes of digestion, notably also of assimilation, if not the emulsification of fat. I do not think there is any good anatomical reason for the gall-bladder anyhow. It is something like the appendix vermiformis, possibly gotten up for the amusement of surgeons. Certainly it puts a good deal of money into their pockets. We know that the appendix is a rudimentary organ, the remains of the prolonged cecum of birds, showing the way we have come.

Dr. Vance: I have seen only two cases in which there were more stones than in the case reported. One was a case operated upon by Dr. Cartledge, in which there were twenty-three, and one case of Dr. Dugan's, in a man having several hundred. This man died of intercurrent disease at the end of six weeks, the wound having healed completely, and the *post-mortem* revealed a large number of stones free in the abdomen. The case Dr. Anderson spoke of I thought was appendicitis. I had a case some time ago where the diagnosis was somewhat difficult because of the low position of the tumor, many of the symptoms of appendicitis being present.

Dr. Roberts: I have very little to say in closing the discussion. The case of Dr. Dugan's, mentioned by Dr. Vance, was a very interesting one. I assisted in the operation. The gall-bladder was found ruptured and the stones loose in the abdominal cavity. This case bears out the theory that the bile alone is not irritating to the peritoneum, but the products of inflammation of the gall-bladder are. These stones were quite small. In the case referred to by Dr. Cottell the stones were not much larger than grains of coffee. This woman also had cancer of the liver.

ICHTHYOL IN ACUTE PHARYNGITIS.—In acute pharyngitis a gargle containing two or three per cent of ichthyol, used every ten or fifteen minutes, is said by Dr. Sonnenberg to be the most rapidly efficacious treatment. In all the forty cases in which he has employed it the inflammatory symptoms entirely disappeared in from twelve to twenty-four hours.—*The Lancet*.

Reviews and Bibliography.

A System of Legal Medicine. By ALLEN McLANE HAMILTON, M. D., Consulting Physician to the Insane Asylums of New York City, etc., and LAWRENCE GODKINE, of the New York Bar. With the collaboration of Prof. JAMES F. BABCOCK, LEWIS BALCH, M. D., Judge S. D. BALDWIN, LOUIS E. BINSSE, Esq., C. F. BISHOP, Esq., A. T. BRISTOW, M. D., B. F. CARDOZO, Esq., C. G. CHADDUCK, M. D., A. F. CURRIER, M. D., C. L. DANA, M. D., GEORGE RYERSON FOWLER, M. D., W. T. GIBB, M. D., W. S. HAYNES, M. D., F. A. HARRIS, M. D., W. B. HORNBLOWER, Esq., CHARLES H. JEWETT, M. D., P. C. KNAPP, M. D., R. C. MCMURTRIE, Esq., C. K. MILLS, M. D., I. E. PARSONS, Esq., C. E. PELLEW, E. M., Judge C. E. PRATT, W. A. PURRINGTON, Esq., B. SACHS, M. D., F. R. STURGIS, M. D., BRANDRETH SYMONDS, M. D., V. C. VAUGHAN, M. D. Illustrated. Vol. 1. 657 pp. New York: E. B. Treat. 1894.

Whether the credit is to be given to the editor, Dr. Hamilton, who has already won an exalted place among writers on medical jurisprudence as well as in other departments of medicine, or to his excellent corps of assistants, the work before us is well entitled to be placed among the classics. Every article in the volume not only evidences learning, industry, aptitude, and care, but is cast on an elevated plane that places it in line with such works as Taylor's, while in fullness it leaves nothing to be desired. Nothing trite or commonplace, nor any thing of the nature of padding, is found in its pages. The first chapter, marked by contributions of new facts and observations, is one by Dr. Hamilton himself on "Identity in the Living," which is well supplemented by one by Benjamin Cardozo on "Identity and Survivorship." The more familiar poisons are well treated by Pellew, the alkaloidal poisons by Haynes, while ptomaines and other putrefactive products are learnedly considered by Dr. Victor C. Vaughan, whose name is so closely and so creditably associated with the investigation of poisons of this class. Large consideration is given to questions relating to life insurance, and the volume closes with the medico-legal relations of physicians, surgeons, dentists, and pharmacists. To the lovers of medico-legal studies the appearance of the future volumes of the series will be looked forward to with the liveliest interest.

D. T. S.

Travaux d'Electro-therapie Gynecologique. Archives Semestrielles d'Electro-therapie Gynecologique, Fondies et Publiques. Par le DR. G. APOSTOLI, Vice-President de la Societe Francaise d'Electro-therapie, etc. 717 pp. Paris Societe d'Editions Scientifiques. 1894.

In this volume Dr. Apostoli has collected from the writings of all the leading gynecologists in the world contributions of evidence to the success which has followed the employment of electricity in the treatment of tumors after the method first effectually employed by him, as well as the results of electro-therapy in all other departments of gynecology. The showing is

one of which no man could but feel a commendable pride. With energy, industry, and perseverance, almost without parallel, Dr. Apostoli has impressed his views on the medical world, and modified gynecological procedures in nearly every department. With the impetus given electro-therapy in gynecology, as well as in other departments of medicine, it is not at all unlikely that in the hands of many it has been carried to extremes. But, on the other hand, it must be conceded that it has been the great support of conservatism, and has not only brought blessing in positive results, but it has also been most beneficent in its work of restraining the knife. This work of Dr. Apostoli commends itself as painstaking, conscientious, and candid, and gives another proof of the author's high claim to be styled a benefactor of his kind.

D. T. S.

The Physician's Visiting List for 1895 (Lindsay & Blakiston's). Forty-fourth year of Publication. Philadelphia: P. Blakiston, Son & Co.

This handy and well-arranged list is supplied with calendar for 1895-6, table of signs, metric system of weights, etc., posological and dose tables, list of new remedies, incomparables, poisons and antidotes, disinfectants, examination of urine, Bright's disease (diagnosis), simpler diseases of the eye, table for calculating period of gestation, and comparison of thermometers. Besides these are the blank leaves for all desirable memoranda. In size, arrangement, and quality of work it seems to leave nothing to be desired.

D. T. S.

Weekly Medical Review, Pocket Reference Book and Visiting List; Perpetual. St. Louis: J. H. Chambers & Co., Publishers. 1895.

This visiting list is made for twenty-five patients per week, a size that seems settled upon as being as large as physicians are willing to carry, those having a larger list of patients preferring to use more than one list. It has all the usual ready references and some memoranda that are as new as useful, such as articles loaned. It will hold its place in the lists with the best.

D. T. S.

THE THERAPEUTIC VALUE OF ICE IN OPHTHALMIC SURGERY.—McGillivray (Ophthalmic Review) commends the topical employment of cold in ophthalmic surgery. In case of recent injury to the eyeball the eye is bathed with a sublimate solution ($\frac{1}{5000}$), the patient is put to bed and instructed not to open his eyelids, and ice compresses are applied immediately and continuously. If, after a day or two, no inflammatory reaction has set in, the compresses are withheld. In cases attended with inflammation, the application is continued till the process has subsided. Each compress is removed as soon as it begins to lose its cold feeling, and a fresh one is applied.

Foreign Correspondence.

LONDON LETTER.

[FROM OUR SPECIAL CORRESPONDENT.]

A Low Death-rate; Presentation to Prof. W. R. Smith; Adoption of the Opinion of the Royal College of Surgeons; Prof. V. Horsley on Bullet Wounds; Hydro-Electric Treatment of Heart Disease; The Volunteer Medical Staff; Paying Patients; Diphtheria, etc.

Down to the present time the climate of the United Kingdom has been remarkably mild and open; as a result of this the mortality returns for the thirty-three great towns have only exhibited a very small variation, the weekly death-rates for the past eight months ranging between 15.2 and 19.6 per 1000, the average for all being rather under 17. The London rate has been lower than that for the towns generally, being under 16.5 for the same period, and for the eleven months from the beginning of the year it has been only 17.7, or very little in excess of the rate for the year 1889, the healthiest on record. Taking the total number of deaths registered from all causes there has been a saving of nearly ten thousand lives in the metropolitan area alone.

In acknowledgment of his courtesy and attention at the recent Public Health Congress at the Guildhall, Prof. William Robert Smith, Director of the Laboratories of State Medicine at King's College and President of the British Institute of Public Health, has just received a handsome testimonial. The presentation was made by the Lord Mayor at the Mansion House, and took the form of a large silver salver, a tea service, a flagon, and a punch bowl. Dr. Smith said that public health work was very onerous, and at times was likely to bring about little disturbances among individuals and oftentimes to place them in contact with vested interests, but he was glad to find that so far his efforts had met with approval. He added that as medical officer for the School Board he felt that he was responsible for the health of the 500,000 children now receiving free education.

By a large majority the Metropolitan Asylums Board has resolved to accept the offer of the Royal College of Physicians and Surgeons to supply antitoxin for the purpose of treating diphtheria cases in the Board's hospitals. Lord Coleridge, on behalf of a deputation, begged the managers to hold their hand until it had been proved to demonstration that the new method afforded a real cure for the disease, and that its adoption would not entail further evils on the patients. As a public body he maintained that it was not right to expend the ratepayers' money on an experiment. This

argument was met in reply by the assertion that every scheme of progress in the past had been opposed by similar contention. The experiment had arrived at a stage when, in the opinion of eminent medical men, it might safely be carried further, and that ought to be quite sufficient for the Board. A medical member of the Board stated that diphtheria had made rapid strides in London in recent years, and the mortality from it had greatly increased. In countries where a certain therapeutic substance had been used its deadliness had been substantially reduced, and no evil results had followed to the patients by its adoption.

Prof. Victor Horsley has given an interesting lecture on the "Effects of Modern Rifles." First, Dr. Horsley showed some photographs of bullets in flight, demonstrating that in front of every bullet is a parabolic curve of compressed air, while behind it there are a series of little eddies of air rushing into the vacuum created by the flight of the missile. A tin canister was taken, and a ten-grain bullet having a velocity of 3,800 feet per second fired through it. There were two small holes in the canister. Then the lecturer filled a canister with some wet, soft substance, put on a lid and fired again. The lid of the canister flew off, showing that the bullet in its passage caused the hydro-dynamic effect to be communicated right to the outside particles. An empty skull was then fired through, two small holes being the result; then a skull filled with water was treated in the same manner; this time the skull splintered and gaped. Dr. Horsley said these demonstrations showed that when a bullet is fired through a brain the substance is forced in all directions with violence and great pressure against the skull. Prof. Horsley has demonstrated by experiment that after the shock of a bullet through the brain the heart will begin again irregularly, spasmodically, but still it will begin again. The lungs will not. In his experiments the action of the heart and lungs of an animal were indicated by a system of pneumatic tubes and levers upon a chart. An animal under ether had a shot fired at it so as to glance off the skull. Both lungs and heart continued working unchanged. Then a shot was fired through the brain. This time the heart continued to go on irregularly, but the breathing ceased. The net result of these and other experiments was to show that, provided the action of the lungs could be restored, an animal might be shot through the brain and live. The brain with a passage forced through it is still pressing heavily against the sides of the skull. This must be relieved by trephining, and the conclusion arrived at by the Professor is, that if a man were shot through the head and were treated first as if he were a drowned person until such time as trephining could be performed, his life might still be saved.

It has been remarked in one of our largest lunatic asylums that dark people vastly preponderate among the insane, to such an extent that only one in one hundred and sixty-five patients had red hair, and only four light hair and complexions.

A medical man, acting upon Professor Marey's remark that the capillaries are the masters of the circulation and not the heart, has obtained some

results in the treatment of cardiac affections by means of the hydro electric bath in connection with properly regulated exercise and proper atmospheric surroundings. The baths are found to be only applicable where the heart is not degenerated, and in cases where there is no cardiac cachexia. The action is found to be similar to that of strychnine when given in minute doses progressively increasing and long-continued. The hydro-electric bath is said to give rise to no unpleasant sensations during the application of the current. It stimulates the nerves and facilitates the action of the heart.

Lord Methuen, in presenting prizes to the Volunteer Medical Staff Corps, paid a high compliment to the efficiency of this branch of the auxiliary service. They sometimes heard, he said, that the medical department was not so much appreciated as it might be. He assured them that in the army there was no department looked upon with greater regard, or that was watched with greater anxiety. In the case of invasion of this country it would be a very great godsend to them to be able to reckon upon pretty well ten thousand men qualified to attend the sick and wounded. With regard to the ambulance portion of the mobilization scheme, it was a great enterprise to provide for twenty-thousand sick and wounded in case of an invasion.

At a largely attended meeting, convened by the Incorporated Medical Practitioners Association, at which Dr. Eady took the chair, among other resolutions unanimously adopted was the following: "That this meeting considers that public hospitals, being charitable institutions, should not be converted into commercial undertakings, and that the admission of patients to any hospital who pay more than the actual cost of their board implies the conversion of part of that hospital into a lodging house, conducted for the purpose of profit, and is a custom, therefore, which is destructive of any claim on the part of that hospital to deserve charitable support."

A curious reason is given for the foundation of a female school of medicine in St. Petersburg. It is said that permission has been given for the school to be founded in order that women who desire the training should not be forced to travel for it to France or Switzerland, where they are likely to become imbued with nihilistic principles.

The director of the Research Laboratories of the Royal College of Surgeons and Physicians recently mentioned that during the past year 13,694 cases of diphtheria occurred in the metropolis, and in that period there were 3,195 deaths, giving a mortality of 23.3 per cent. This was an enormous increase on the returns of the previous year.

LONDON, December, 1894.

Abstracts and Selections.

ARISTOL IN OTORRHEA AND BURNS.—Dr. Krebs, of Hildesheim, has found aristol—which is a di-iodide of thymol occurring as a brownish powder and containing nearly half its weight of iodine, and which has been used for the last three or four years in various skin diseases, ulcers, burns, keratitis, and nasal affections—very valuable in aural practice. In thirty-three cases of chronic purulent otitis, aristol alone effected a complete cure in twenty-two. He does not consider it to be an antiseptic, as it does not deodorize a fetid discharge, but he finds that it has a marked effect in drying up and arresting the secretion. In serous discharges of a chronic character persisting after the purulent character has disappeared aristol is preferable to all other drugs, and especially to boracic acid. Often one or two insufflations are sufficient to arrest the serous discharge. It is also of value in chronic otorrhea when uncomplicated and where the perforation is a large one; also in cases where there are granulations of the tympanic cavity and meatus, provided they are not too extensive, and that they are not due to caries of the bone. Aristol should not, however, be used where there is but a small perforation in caries, or where the mastoid antrum is affected, and it is useless in fetid otorrhea, though, if the fetor is due merely to want of cleanliness, the ear should be cleaned, and boracic acid, which is a true antiseptic, blown in. According to Dr. Haas, burns and scalds of all kinds are most satisfactorily treated by means of aristol, which is, chemically speaking, biniodide of thymol. His plan is to disinfect the burnt surface with a boracic lotion and to open the blebs; aristol gauze is then applied, and this is covered with sterilized cotton-wool, gutta-percha paper, and a bandage. He does not recommend the application of aristol in powder direct to the wound at the beginning, as this is calculated to hinder the dressing from soaking up the secretion. Later, however, when this has diminished, the aristol may be applied either in substance or in the form of a ten-per-cent ointment made up with olive oil, vaseline, and lanoline. Dr. Haas has collected a large number of references to reports by continental and American surgeons on the use of aristol in burns, a treatment that is by no means very novel, as Dr. Stern, of New York, employed it successfully more than three years ago. He, and most of the writers referred to by Dr. Haas, employed a ten-per-cent ointment or a solution of aristol in oil from the beginning. The great advantages of aristol are its analgesic action, its antiseptic properties, and its power of hastening cicatrization. Added to these, which to some extent are shared by iodoform, is another great advantage, viz., its entire harmlessness. In this it differs from iodoform, which is unsuitable for application over an extensive surface, for fear of its exerting a toxic action.—*The Lancet*.

SYMPHYSIOTOMY IN PRIVATE PRACTICE.—Wallich (*Ann. de Gynéc. et d'Obstet.*) publishes a case which he thinks shows the feasibility of the operation without special apparatus or skilled assistants. The patient, a five para, aged thirty-two, was rather below the medium height, and stout, with no history or physical signs of rickets. Her first pregnancy ended at term with a labor of twelve hours and delivery of a living child weighing 1,750 grams; her second with a miscarriage at two months and a half; her third with full term spontaneous delivery of a living child weighing 2,250 grams after two hours and a half labor; her fourth with delivery, by high forceps operation, of a living child weighing 3,300 grams after forty-eight hours labor. The present labor began on August 25, 1893, proceeded very slowly on the 26th, the dilatation having reached the size of a five-franc piece at 7 A. M. of the 27th, when the membranes ruptured, the amniotic fluid being greenish and the head still above the brim, and showing no tendency to descend. At 11 A. M. Wallich was summoned, and found the patient very excited, but the pains still vigorous, and the fetal heart-sounds good. The fetus was large, and presenting by the vertex with Naegele obliquity. The anterior aspect of the sacrum was accessible, but the fetal parts prevented the promontory being reached. While waiting for completion of dilatation the necessary instruments were sent for. At 2 P. M., dilatation being complete, the patient was placed in the obstetrical position on a chest of drawers. Two other practitioners, a midwife, and the husband assisted, the latter holding one of the legs. The usual antiseptic precautions being observed, and the patient having been anesthetized, forceps were applied, though the head was still above the brim; but the operator, finding the first attempts did not promote descent, proceeded at once to the operation of symphysiotomy. Leaving the forceps in position, he divided the cartilage and subpubic ligament, separated the pubic bones four centimeters, and again attempted to extract; but as the head still resisted he increased the separation to five and a half centimeters, when the head descended readily. The bones were approximated, while the extraction was made through the soft parts. The child was living and weighed 3,810 grams. After extraction of the placenta and administration of an intra-uterine injection the wound, which meanwhile had been stuffed with iodoform gauze, was sutured, and the pelvis encircled with a girdle of plaster-of-paris held together by a strap. The patient was left on the chest of drawers for the night, and removed to her bed the following day, when she was also able to pass urine spontaneously. Scrupulous cleanliness and antisepsis were observed throughout, the wound being dressed twice daily, and the external genitals doused after every micturition and action of the bowels. The deep stitches were removed on the eighth and the superficial on the ninth day; the plaster-of-paris belt was removed on the thirteenth day, and on the twentieth the patient was able to get up, and walked without pain. She had been able to suckle her child from the first, and six weeks after the operation both were flourishing. The sacro-subpubic diameter was found

to be 10.7 centimeters, the promontory being very high. The fetal head measurements were: biparietal, 9.4 centimeters; bitemporal, 18.2; suboccipito-bregmatic, 9.9; suboccipito-frontal, 11.6; occipito-frontal, 12.1; occipito-mental, 14. The indications for the operation were the attitude (Naegele obliquity) and volume of the head and the contraction of the pelvis. Persistence in the attempts with the forceps it is thought would certainly have injured the child's skull.—*British Medical Journal*.

TONSILLOLITH: AN UNUSUAL CASE AND SPECIMEN.—The following case of tonsillolith is presented on account of the unusual size which the stone acquired before removal, and incidentally on account of a mistake in diagnosis as to its nature.

The patient, a male, twenty-six years of age, applied last August for treatment on account of "something growing in his throat," which he had noticed since the preceding fall, and which he said had been treated by the application of caustics.

Inspection showed a marked bulging of the soft palate just above the right tonsil, with sub-acute inflammation. Thinking that it might be an abscess it was cocainized and incised, when the knife struck the calculus. The incision, which was midway between the uvula and the anterior pillar, was enlarged and forceps used to withdraw the mass, but without avail, as it could not be grasped. It was then shelled out by passing the finger behind the pillars of the fauces and forcing the mass forward.

While tonsilloliths are said not to be very rare, large ones are exceptional, and the one here presented is the largest of which I have seen any record. Burnett, in his recent *System of Diseases of the Ear, Nose, and Throat*, refers to three large ones which have been reported, the largest of which measured 25 mm. long, 5 mm. thick, and 4 mm. broad. This one measures 25 mm. x 22 mm. x 18 mm. Its weight is 85 grains.

Tonsilloliths are of interest on account of the hemorrhage that sometimes occurs when they slough out, and on account of the obstruction they offer in tonsillotomy, one case having been reported in which the tonsillotome was broken by the resistance offered by a stone.

Calculi usually commence as caseous masses in a follicle of the tonsil, which on drying become hard, and may gradually increase in size by accretions.

This one shows very markedly the laminae of growth. They are usually composed of organic matter, phosphorus, and calcium carbonate.—*Dr. W. K. Butler, in Philadelphia Medical News.*

THE TENDO-ACHILLIS PHENOMENON.—Ziehen (*Deut. med. Woch.*) concludes a discussion on this subject based on a large number of cases. He has found that out of one hundred and eighty-eight general paralytics this tendo-Achillis, or ankle-jerk, was normal only in fifty-seven. An inequality between the two sides was very common. The gradual diminution and dis-

appearance was actually observed. Sometimes the loss of this tendon reflex was an early symptom. The knee-jerk is not always absent at the same time. Thus in twenty-three cases the knee-jerk was present, and yet the ankle-jerk was lost on one or both sides. The loss of the ankle-jerk is very uncommon in functional psychoses or neurasthenia, and the author does not believe that it is often absent in health. Once the jerk unquestionably reappeared under vigorous mercurial inunction. Foot-clonus is very common in general paralysis, but is of no diagnostic significance. A one-sided or double-sided weakening of the ankle-jerk is strongly in favor of general paralysis as against functional psychoses. It will not serve to distinguish general paralysis from senile dementia, cerebral syphilis, or chronic alcoholism. In senile dementia it was altered in thirty cases. In secondary or congenital imbecility it may point to congenital syphilis as a cause. Foot-clonus and unequal ankle-jerks are more common in hysteria than in epilepsy, the increase being on the side of the hemi-anesthesia. In chronic alcoholism diminished or absent ankle-jerk was commoner than foot-clonus. Absent ankle-jerk on one or both sides is very uncommon in functional psychoses or neurasthenia, being present without doubt only in four cases. The author concludes that the ankle-jerk is quite as important as the knee-jerk, that absolute indications are as rarely given by it as by the knee-jerk, that absence on one or both sides is of the greatest importance, and that the loss of it in a mental case points with great probability to general paralysis or syphilis of the central nervous system, or in a less degree to senile dementia or alcoholism. Peripheral complications, such as sciatica, etc., must be excluded.—*British Medical Journal*.

FERRATIN.—Under ordinary circumstances the liver of the pig contains an acid albuminate of iron which has been styled "ferratin," and this has been used with success for therapeutic purposes. M. Germain Sée states that even when taken for a considerable period it never causes gastric or intestinal disturbance, and never gives rise to the formation of sulphuretted hydrogen in the bowel. Indeed, it improves the appetite and regulates the intestinal functions. The dose of artificial ferratin is from eight to twenty-four grains *per diem*; it is not soluble in water. In a large number of cases of chlorosis and anemia following acute affections, Banholzer found the hemoglobin increased by five per cent after a week's treatment by ferratin, and at the same time there was a marked increase in the number of red corpuscles. Similar results were obtained in chlorosis and anemia, which were not due to acute diseases, and it was noted that all the patients enjoyed an excellent appetite while under the treatment. When a comparison was instituted between ferratin and Blaud's pills it was found that the former produced the greater increase in the hemoglobin.—*The Lancet*.

GLYCEROPHOSPHATES IN NERVOUS DEPRESSION.—Dr. Robin brought before the Paris Academy of Medicine a short time ago an account of some

observations, in which he has been engaged for five or six years past, on the salts of glycerophosphoric acid as a remedy in nervous affections of various kinds in which lecithin has apparently undergone decomposition, as indicated by the existence of incompletely oxidized phosphorus in the urine. He found that four grains of the glycerophosphate of calcium administered subcutaneously exercised a remarkable effect on the physiological processes, increasing the urea in the urine from 2.3 to 3.1 per cent, also the bodies which are the products of nitrogen and sulphur oxidation, and the proportion of chlorides and sulphates, as well as the lime, magnesia, and potash. The increased nutrition of the organs is probably due to direct stimulation of the nervous system, and it thus acts in an opposite manner to antipyrin, which, as is well known, depresses the nervous system and is therefore indicated in conditions of nervous irritation. As to the therapeutic use which can be made of the glycerophosphates, Dr. Robin has given them subcutaneously in doses of from two and a half to four grains daily in cases of sciatica, tic douloureux, neurasthenia, phosphatic albuminuria, and even Addison's disease, with much benefit. The injection does not cause any local disturbance. In one case of locomotor ataxia, however, some cerebral irritation with insomnia was caused by the treatment.—*The Lancet*.

NEW OPERATION FOR THE REMOVAL OF ENLARGED CERVICAL GLANDS. Dollinger (*Centralbl. f. Chir.*) describes an operation for the subcutaneous extirpation of tuberculous lymph glands in the neck and submaxillary region. The posterior half of the scalp having been shaved, and the whole of the scalp and the skin of the affected side of the neck carefully disinfected, an incision is made commencing behind the external ear, and carried in a curved line with the convexity backward and downward toward the middle line of the neck behind. The skin and superficial fascia are divided, and the anterior and lower flap is undermined by finger and elevator until the enlarged glands are reached; these, if they have not broken down or contracted firm adhesions with surrounding soft parts, may now be readily detached by the elevator and drawn through the wound. The skin forming the lower flap is so yielding, especially in women and children, that it is possible by this operation, the author asserts, to reach glands situated near the chin, and even those in the supra-clavicular region. The wound, when made under strict antiseptic precautions, heals quickly, and the scar is hidden by the new growth of hair.—*British Medical Journal*.

FOR BRONCHORRHEA (Provincial Medical Journal):

- R Copaiabæ, ʒiij;
 Spiritus chloroformi, f ʒj;
 Mucilaginis acaciæ, f ʒvij;
 Liquoris potassæ, f ʒj;
 Aquæ cinnamomi, q. s. ad. f ʒvij.
 Misce et fiat mistura.
 S. Teaspoonful three times daily.

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"NEC TENUI PENNĀ,"

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D. W. YANDELL, M. D., and H. A. COTTELL, M. D., Editors.

JOHN L. HOWARD, M. D., Assistant Editor.

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THE TREATMENT OF DIPHTHERIA WITH THE ANTITOXIN.

For one time America has not caught the bait and run away with it. The antitoxin treatment of diphtheria has been received on this side the water with caution, and yet there seems to be something in it.

For those who may not have kept pace with the method, it may be repeated, that it consists of infecting one of the lower animals, mainly the horse hitherto, until it becomes refractory to the poison and shows no reaction on further injections of it, that is, until the horse becomes immune. This requires about six months. The serum of the horse thus rendered immune is then injected into the tissues of the patient to be treated for diphtheria, and it in turn acquires to a certain extent the immunity, or has the disease greatly modified.

The amount of serum used in each case by different operators has been various, ranging from one cubic centimeter (about sixteen minims) to nineteen cubic centimeters (five drams). The larger quantity is used but once, and the smaller repeated once a day for two or three days. The article, by a formula known as Aronson's, seems to be most used. It is to be supposed that those preparing and supplying the article will give out with each brand the appropriate dosage. The cost of the average approved dose of say two centimeters or thirty minims is from fifteen to twenty cents.

The reporters so far agree fairly well in their results, in so far at least as that they are all more or less favorable, giving results ranging from seventy-five to eighty-five per cent of recoveries against from fifty to sixty per cent by former methods. This may be a fair comparison for the great centers of population, but we think that fifty per cent of losses is far above the experience of our own city, or that of country districts. Indeed, on the average, we hardly expect a loss of twenty-five per cent.

In reports of results there are also some discrepancies. For instance, some reporters have found immunity, or rather prophylaxis, as due to the antitoxin almost *nil*, while others have observed marked advantage. Others report a favorable influence manifested almost immediately, while others do not observe it in less than forty-eight hours.

On the whole, however, the outcome of the treatment is encouraging, and would still be so if the estimate of its advantages were to be reduced one half.

The humiliating experience of the tuberculin craze, and of several others that have had their run even in high quarters, should admonish us not to be too sanguine, and should serve to restrain the gentlemen who were so much carried away by enthusiasm on former occasions, and allow conclusions to be reached by the more thoughtful and judicious. It is easy to see that, among those who are now making reports, there is a tone of bias in favor of the new measure that is exhibited in probably an unconscious effort to show that the cases experimented with are unusually severe. Is it too much to ask that tests be made of equal numbers of patients chosen by sequence or by lot in the same hospital and under the same conditions, except as to treatment? In this way correct conclusions can be reached much more speedily and probably much more correctly.

The new measures are worthy of substantial encouragement, and we sincerely hope they will realize all that the most sanguine anticipate in the amelioration of this peculiarly cruel and growing scourge.

Notes and Queries.

SPECIALISM IN PHARMACY BEGOTTEN BY PROGRESS IN BACTERIOLOGY.

Despite its very speculative character, much interest attaches to the forecast made by Dr. Josef Schrank in his address on the Future of Pharmacy, delivered at the last gathering of German scientists and physicians in Vienna. Bacteriological remedies for disease give to-day such a promise as they have never given before; their general adoption can not fail to exert an influence on pharmacy; and the present world-wide discussion of the antitoxine treatment of diphtheria bids the pharmacist reflect on the manner in which his interests are to be affected. Mere conjecture, under the circumstances, is better than a heedless apathy.

Pharmacy and bacteriology first came in touch when the aseptic treatment of wounds began to prevail. Shortly thereafter medicine demanded that the liquids for subcutaneous and intravenous injection be administered sterile. Now it is probable that pharmacy will be greatly modified by the future use of agents imparting immunity, and pharmacists will be required to supply immunized blood serum and alexines, tannin solutions, chemicals, and culture media.

Where the physician lacks time for the bacteriological examination of blood, pus, sputum, urine, and the like, the pharmacist will find lucrative and honorable employment.

Dr. Schrank asserts that the medical curriculum of the future must be made to comprise hygiene, food investigations, bacteriology, and that portion of veterinary medicine needed in the production and testing of bacteriological remedies. *Pari passu*, the office of the apothecary must expand till it comprehends the manufacture of bacteriological remedies, the testing of foods, and the general labor required as a preliminary to diagnosis. The next step must be the establishment of distinct classes of apothecaries—pharmaceutical specialists—according to their individual functions. We shall then have the dispensing specialist, the food and water specialist, the urinologist, the pharmaceutico-bacteriological specialist, etc.

It is incontestable that pharmacy will be affected by the advances in bacteriology; those advances have already made themselves felt in almost every drug store, and should the much-discussed antitoxines fulfill their promise the druggist will become their natural and proper purveyor. Beyond this point, however, the doctor's forecast is purely speculative; the production of the new remedies will at once be undertaken by the large manufacturing laboratories or by the government, never by the pharmacist. Fancy the retailer of the future dividing his time between the dispensing-room and the bacteriological wing, preparing his own cultures, making his own injec-

tions into the animals purchased at great expense, observing the physiological reactions, tapping the blood from the animal, and finally decanting the curative serum into his own vials! The pharmacist in the past has never tried to make his own vaccine, nor will he be more likely to manufacture antitoxine in the future.

There is no reason why the educated druggist should not become the expert food- and water-analyst or bacteriologist, thus creditably enlarging the scope and income of his labor. But the first essential is a thorough and suitable education. At the present time it is useless in the United States to urge such work on any save a small body of accomplished apothecaries. Sanitary and urinary analyses, bacteriological determinations, require an amount of learning which we have no right to expect from any man save the avowed specialist. We do not want to see the courses in pharmacy so arranged as to give the student a smattering of many things—we want first to see solid instruction in the indispensable few; pharmaceutical chemistry, botany, microscopy, materia medica, pharmacognosy, and practical manipulations. When this foundation has been solidly built, the desired superstructure may be added. Any other course will accomplish precisely the mischief which is now so obvious in medicine—specialism run mad—specialists galore—leaping from the college into the specialty and assuming the airs of the expert ere possessing the experience of the general practitioner. Specialism should be the natural, unforced outgrowth of general practice, whether in medicine or pharmacy. From any other may the Lord deliver us!—*Bulletin of Pharmacy*.

ILLITERACY OF MEDICAL STUDENTS.—Under this heading the editor of the British Medical Journal reviews the terms under which the older universities receive candidates for the M. B., and in the following paragraphs shows that even in England the preparatory education of candidates for the medical degree is lamentably insufficient. The editor says:

Is it not, after all, the duty of the college tutors to look more narrowly to the literary equipment of their men, and to detain those who, either by idleness or misfortune, are illiterate, for a longer time in the arts classes before "specializing" in medicine? In our editorial capacity we suffer much from diffuse and inelegant writers who may by very nature be incorrigible; but we also find among our contributors many who needed more schooling, and who are much indebted to the press for correction.

Some one said of a bad writer that he might produce as much illegible manuscript as he pleased for his own consumption, but that he had no business to consume the time of others which did not belong to him; an orderly and lucid style not only indicates clear and orderly thought, but also shows a due consideration for the time and labor of the reader.

After all, we come back to the old story that our public schools have the honorable and useful ambition to impress a high stamp of character upon their scholars, and in this great aim they succeed. But if character stand

first learning must not lag far behind, and this our schoolmasters appear to forget. A few clever boys who would succeed anywhere take away from their schools a good education; the ordinary boy leaves school knowing nothing. Nor is this to be wondered at, seeing that any graduate who has taken a tolerable degree in some special subject, and is also a good cricketer may be pitchforked into the teaching profession, always without any preparation, and often without any natural aptitude for it.

For any profession except that of teaching some previous preparation is necessary; many of our headmasters seem to be even unaware that any science of teaching exists. Consequently the bulk of their boys come to the universities to be taught school subjects, or are sent to crammers, who do not know how to teach, to be hustled in six months through six years' subjects. And then the British parent exclaims against "overwork."

STONE BROTH.—The old receipt for stone broth has gone out of fashion, but the principle involved in it is at the root of many inventions of modern times. We were told to boil a smooth pebble from the brook, a little salt and pepper, together with an onion and divers vegetables being added as a relish, while the flavor was improved by the addition of a mutton bone. No doubt the broth was good, and equally no doubt the modern suggestion that ladies and gentlemen suffering from insomnia should go "hopping" in Kent is good also, notwithstanding the feeble hypnotic influence of the hop. The well-to-do hop-pickers give their labor for nothing, and the farmer in return provides them with bed and board of a simple character. It is quite idyllic, and if one considers the causes of nine tenths of the insomnia from which people suffer nowadays "hopping" ought to be a cure. The fresh air, the long hours of not too laborious work, the simple diet, the absence of responsibility, and the probably hard bed give as complete a change as possible from the habits of mental worry and bodily indulgence so often at the root of the malady. We have the greatest possible respect for the therapeutic virtues of the hop, but when prescribed in this form we are reminded of the pebble in the stone broth, and attribute the excellence of the prescription to its other ingredients.—*British Medical Journal*.

SPECIFICITY OF THE CHOLERA BACILLUS. — If incontrovertible proof of the specificity of the cholera bacillus of Koch were wanting it would be furnished by cases of accidental infection in the laboratory. Such a case occurred several years ago in the Hygienic Institute at Berlin, fortunately with a favorable outcome. A parallel case, but ending fatally, has recently been reported by Reincke (*Deutsche medicin Wochenschr.*). The case was that of a medical man, who, while engaged in investigations of suspected cholera-water in the Hygienic Institute of Hamburg, was seized with diarrhea and vomiting, passing into an asphyxic condition, out of which he could not be brought, and to which he finally succumbed. That infection took place in the laboratory there was no doubt, although the precise mode

of occurrence could not be unequivocally established. The accuracy of the diagnosis was confirmed by the presence of cholera bacilli in the stools during life, and in the intestinal contents after death. A single case of this kind has more weight as to the specific powers of a given micro-organism than no end of negative evidence. It should also carry with it the admonition of care to be exercised in the manipulation of pathogenic micro-organisms in demonstrations and investigations.—*Philadelphia Medical News.*

HYSTERO-EPILEPSY DUE TO ASCARIDES.—S. N. Koneff (*Meditzinskaia Beseda*) relates at length a case of severe reflex neurosis due to intestinal parasites. The patient, a peasant lad, aged eighteen, came under his observation with "fits," recurring with increasing frequency and severity. They had commenced in 1885, at first occurring twice or thrice a year. At the time of admission the fits occurred several times weekly, the seizures lasting from one to two and a half minutes, and mostly recurring successively twice or thrice, with intervals varying from five to ten minutes. The fits consisted in exceedingly violent clonic convulsions, accompanied by loss of consciousness, insensibility of the pupil, trismus, etc. They were ushered in by globus hystericus or epigastric pain, or sometimes vomiting, and invariably made their appearance shortly after a meal. After the attacks the patient always remained in a drowsy state for one or two hours, coming round but very slowly and looking extremely weak. The administration of KB₂ (in increasing daily doses of from 20 to 80 grains during a month) and a subsequent course of laxatives (Carlsbad salt, rheubarb, etc.) did not produce the slightest effect either on the frequency or on the severity of the fits. Ultimately, having elicited the fact that the lad had voided "a worm" five years previously, the author tried santonin (one grain three times daily for three days), with the result that seven ascarides were expelled, after which all the symptoms described "vanished as if by magic," and never recurred up to the patient's discharge five and a half months later.—*British Medical Journal.*

PARALYSIS OF THE ABDUCTORS OF THE VOCAL CORDS IN THE COURSE OF TERTIARY SYPHILIS.—Four years after the primary infection the patient was seized with simultaneous right-sided paralysis of the face, arm, and leg, with loss of speech. Four months later he came under the observation of Boulay and Mendel. (*Arch. Internat. de Laryngol.*) The hemiplegia had diminished, but he had recently developed a paralysis of the right oculomotor. He spoke in a hoarse falsetto voice, and suffered from dyspnea on exertion. On laryngoscopic examination the cords were found to remain immobile on inspiration; they moved very slightly on phonation, and were imperfectly stretched. The palate and tongue were unaffected. There was emotional cerebral disturbance. No evidence of pressure on the recurrenents was found. The seat of the disease was diagnosed as in the bulbar or circumbulbar region—probably syphilitic pachymeningitis.—*Ibid.*

BISMUTH LORETIN.—Blum and Bärwald (*Münch. med. Woch.*) state that the antiseptic action of loretin depends upon the gradual separation of iodine, which in the nascent state has considerable antiseptic action. Loretin forms salts with metals, and in these new bodies this property of the separation of the nascent hydrogen is in some cases retained. This holds good with bismuth loretin, which possesses also the astringent properties of bismuth. The salt, even in large doses, does not produce symptoms of poisoning in animals, but after its internal administration iodine appears in the urine. As an application to chronic ulcers and specific lesions of the skin it was found extremely useful. Healing took place rapidly, and frequent dressings were found unnecessary. It was also found useful in weeping eczema, including eczema of the scalp. It was used in powder, ointment (ten per cent), and paste. As an internal remedy in doses of seven and a half grains it was found useful in the diarrhea of phthisis.—*Ibid.*

INFLUENCE OF ERYSIPELAS ON CHOLERA.—N. A. Blagoveshtchensky (*Meditzinskoie Obozrenie*) has observed four consecutive cases of Asiatic cholera which became complicated by erysipelas. In all of them the appearance of the latter disease abruptly changed the clinical aspect of the primary disease, the diarrhea and cramp immediately ceasing, etc. All the four patients made good recoveries. The author feels justified in concluding: (1) The erysipelatoid process shortens the course of Asiatic cholera. (2) The subnormal temperature of the latter at once gives place to a high febrile one peculiar to erysipelas. (3) Anuria disappears on the second or third day of the complication, while apathy even vanished within twenty-four hours. (4) The general condition, sleep, and appetite steadily improve. *Ibid.*

THE FIRST RECORDED DEATH IN HYPNOSIS.—The death of Ella Salamon, in Tuzer, Upper Hungary, at her home, on September 17, 1894, while in an hypnotic state, has attracted much attention abroad owing to the fact that it is the first recorded instance of death of this kind.—*Journal American Medical Association.*

DR. SAMUEL E. MILLIKEN has been appointed surgeon to the Randall's Island Hospital, New York.

Special Notices.

TANNIGEN, A NEW INTESTINAL ASTRINGENT.—Tannigen, or acetyl tannin, is the result of a series of experiments made by Professor H. Meyer, of Marburg, to discover a combination of tannic acid which would pass unchanged through the stomach and be gradually decomposed in the intestines, thus exerting an astringent effect upon the entire intestinal canal. It occurs in form of a yellowish-gray powder, odorless and tasteless, insoluble in dilute acids and cold water, but soluble in cold alcohol and dilute solutions of phosphate of soda, borax and soda. Tannigen is not acted upon in the stomach, and in this respect is superior to tannic acid, which impairs the gastric functions, especially when employed for a long time. In his experiments on animals Meyer found that even when administered in small doses a portion of the drug could still be detected in the feces, and it is therefore probable that its astringent effect extends to the large intestine. Professor Muller, who has tested Tannigen in numerous cases of chronic diarrhea, found that it was well borne without gastric disturbance, and promptly diminished the number of stools, which became of firmer consistence. Excellent results were obtained from its use in diarrhea of phthisical persons. Doses of 0.2 to 0.5 gram usually sufficed, although daily quantities of 3.0 to 4.0 grams were sometimes administered, and the remedy appears perfectly innocuous.

CHOREA.—The following treatment for Chorea is highly recommended by Dr. L. E. Lemen, Professor of Clinical Surgery in the Gross Medical College of Denver; Health Commissioner of Denver; Surgeon to St. Joseph's Hospital; Division Surgeon of Union Pacific Railway; President of State Board of Commissioners of Insane Asylum, etc.: "Put the patient on Fowler's solution of Arsenic and continue until the eyelids show distension, then stop the arsenic and administer 'Angier's Petroleum Emulsion' until this symptom disappears."

Dr. Lemen claims that by alternating these two remedies in this way he has never failed to cure the worst cases in from three to five weeks.

DR. J. F. RINEHART, Springfield, Ky., writes: I have used ANTIDIPSOLE in the treatment of nine cases of liquor habit, and the remedy has proven very satisfactory in my hands. Six cases were entirely cured; two cases failed, and one returned to drink after three months' abstinence, but acknowledged that he had no thirst for whisky, but was influenced to drink in a social way by his friends.

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